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SUBSCRIPTION (WITH  
DIARY) 20/- PER ANNUM  
SINGLE COPIES 9d.

No. 2628.

JUNE 21, 1930

Vol. CXII.



## *A SURE SUMMER SELLER*

Deliciously flavoured with Lime Fruit Juice

**MEGGESON & CO. LTD.**  
LONDON, S.E.16

IN TINS  $\frac{3}{9}$  per doz. net.  
 $\frac{7}{6}$  " " "

MEGGESON QUALITY HAS OVER 130  
YEARS OF EXPERIENCE BEHIND IT

# **BISMUTH SODIUM TARTRATE**

## **B.P.C.**

Specially manufactured  
for the preparation of

**MIST. BISMUTH. c̄. PEPSIN. N.I.F.**

**MAY & BAKER, LTD.**  
**BATTERSEA - - LONDON, S.W.11**



# Sending people to you—to BUY

## IMPORTANT

On June 26, another Pepsodent front page appears in the "Daily Mail"—the third this year. These pages are additional to the regular Pepsodent advertising programme which goes on heavily all the time—sending people to you to buy.

Link up with Pepsodent advertising. Send for your display to-day.

PEPSODENT advertising is planned with this feature to the fore. To regularly send people to you to BUY. Not for samples, not for free gifts — but to BUY.

And Pepsodent advertising is National, too. It is carefully planned to embrace the use of the best newspapers throughout the country — then supported with a wide range of national magazines and periodicals. The whole scheme is dominating. It is powerful. It is regular.

This persistent advertising policy has created a popular demand for Pepsodent. It is maintaining that demand; not only maintaining it, but increasing it year by year with unfailing regularity.

That is one side of the story. The other is that Pepsodent shows you a clear profit of 38% — equal to

9d. profit on a 2/- tube

5½d. profit on a 1/3 tube

This is a regular profit, too. You can buy at the same price all the time with the knowledge that our huge advertising will move the goods quickly.

Link up more closely with Pepsodent. See that it is displayed regularly in your windows—on your counters. Make sure that you are getting the maximum benefits from the handling of this leading toothpaste. Send for our latest window display—NOW.

**Buy Pepsodent  
regularly on the  
best terms and  
make a clear profit**



MARK  
**Pepsodent**  
TRADE  
The Scientific Dentifrice

The Pepsodent Co., Dept. 280 India House, 8, India Street, London, E.C.3



# A HOT SUMMER IS PREDICTED !



BE PREPARED FOR THE  
DEMAND FOR

## SUNBURN LOTION

Sun baths and open-air bathing  
create a speedy request for this  
line. Look up your stocks and  
order AT ONCE.

One size only. Retails 1/-

**5/6 per dozen**

Own name on three dozen. Own brand  
and private label for gross orders

SEND FOR A SAMPLE OF

## COX'S LANOLINE CREAM

A perfect Toilet Cream. Lanoline in Liquid form. An ideal skin food  
which has attained immediate popularity.

ATTRACTIVE PERFUME

SMALL SIZE RETAILS 10½d.; 6/- dozen

LARGE SIZE RETAILS 1/6; 10/- dozen

ATTRACTIVE PACK

## COX'S SOLID LILAC PERFUME

The Breath of Springtime

ONE SIZE ONLY

ONE PERFUME ONLY

One dozen daintily engraved boxes in gilt-lined outer, 7/- dozen ; Retails 1/-

SAMPLE DOZEN POST FREE

Arthur H. Cox & Co. Ltd. Manufacturing Chemists Est. 1839. Brighton

## LEASE of IMPORTANT CITY OFFICES for SALE

WITH VACANT POSSESSION

42 CANNON STREET, E.C.4

In consequence of the recent amalgamation of Messrs. Morgan Brothers (Publishers), Ltd., Proprietors of "THE IRONMONGER" and "THE CHEMIST AND DRUGGIST," with The Engineer, Ltd., Proprietors of "THE ENGINEER," the offices of the three journals have been moved to new and more commodious freehold premises, which have been acquired at 28-31 Essex St., Strand, W.C.2. The lease of the entire premises at 42 Cannon Street, of which the four well-lighted upper floors have been in the occupation of Morgan Brothers (Publishers), Ltd., the Ground Floor and Basement being sub-let to the Aerated Bread Co., Ltd., is in consequence for sale. Alternatively, the four upper floors (which have also an entrance to Garlick Hill), having a total area of about 7,000 ft., would be let. The premises are in good order. Rent £2,000 per annum, inclusive of rates.

For further particulars, apply to **Messrs. FAREBROTHER, ELLIS & CO.**  
29 FLEET STREET LONDON, E.C.4  
or to **HENRY BUTCHER & CO.,** 63 & 64 Chancery Lane, London, W.C.2

## Lease of Imposing Offices for Sale

WITH VACANT POSSESSION

**33 NORFOLK  
STREET - -  
STRAND, W.C.2**

For further particulars  
apply to  
**WHATLEY, HILL  
& CO.,** 24 Ryder St.  
St. James's, S.W.1

In consequence of the recent amalgamation of THE ENGINEER, LTD., proprietors of "THE ENGINEER," with MORGAN BROTHERS (PUBLISHERS), LTD., proprietors of "THE IRONMONGER" and "THE CHEMIST AND DRUGGIST," the offices of the three journals have been transferred to new and more commodious freehold premises which have been acquired at 28-31 Essex Street, Strand, W.C.2.

The remainder of the lease, covering a further twenty-five years, of the present offices of "THE ENGINEER," at 33 Norfolk Street, Strand, W.C.2, is in consequence for sale. This particularly well-lighted, five-storey building has an area of 8,200 sq. ft., and occupies a site at the corner of Norfolk and Howard Street, adjacent to the Temple Station, whence Westminster and the City may be reached in a few minutes. The building is of modern construction and has a fine and distinctive elevation. It is in good order throughout. Rent £1,600. Moderate price.



# Are you all READY?

**T**HE great household campaign that we told you about is starting. Are **YOU** going to sell the new products and get the big profits? For they **WILL** sell—just as surely as Shell Petrol and Oil.

Make a good show of the smart red tins. The first public advertisements are out and your public will want to buy. Let them buy at **YOUR** shop.



**MAKE  
QUICK  
PROFITS  
ON**

# SHELL



# **A SOUND MONEY SAVING SCHEME**

*WITHOUT LOCKING UP YOUR CAPITAL*

WRITE FOR FULL PARTICULARS  
OF OUR  
**SPECIAL TERMS**  
FOR

**COMBINED CONTRACTS**  
OF  
**MEDICAL SURGICAL**  
**PLASTERS AND DRESSINGS**

**WRITE NOW!**

**A. DE ST. DALMAS & CO.  
LIMITED.**

**LONDON.**  
PHONE or WIRE:  
CLERK 3399  
**LEEDS.**

**LEICESTER.**  
PHONE: 58246-7  
WIRE: ST. DALMAS  
**SYDNEY.**

**DUBLIN.**  
PHONE: 45118  
WIRE: DALMAS  
**BRADFORD.**

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Two efficient salesmen of good appearance want situations (unpaid) at your counter

### VIPER Flycatchers :

2-inch in boxes of 36 as illustrated. Also in widths 3-inch and 4-inch.

### KAYBRO Anti-sting :

Retail 9d. Wholesale 6/- per display outer of 12 tubes.

Also FLYSAC & GORGON Flycatchers, DAK Rallime, etc.

Put these two silent salesmen to work for you immediately.

VIPER 2-inch Flycatchers and KAYBRO Anti-sting ordered from your wholesaler or ourselves come to you in these self-selling outers. Write to-day

**KAY BROTHERS Ltd.**  
Manufacturing Chemists **STOCKPORT**



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## REDUCTION IN PRICE

SHOW STAND FREE

SUPPLIED TO  
CHEMISTS ONLY

# JAYTEE'S PURE OLIVE OIL

*Huile d'Olive de Provence*

**Specially prepared for Salads & Medicinal Use**

IN REPUTED  $\frac{1}{4}$ ,  $\frac{1}{2}$  AND 1 PINTS  
AND IN 1 QUART.

6/-, 9/-, 16/-, 29/- per doz. respectively  
5/9, 8/9, 15/3, 27/6 6 dozen lots

*The show stand sent gratis to all our Customers. Send a postcard to-day*

We can offer attractive style  
in "Own Name" label.

PRICES ON APPLICATION.

**John Thompson** (Wholesale Druggists 1921)  
**Ltd. - LIVERPOOL**

Phone : Royal 1434. Wires : "Drugs, L'pool."





*Adeps Benzoatus*  
*Adrenalin*  
*Amylopsin*  
*Beef Juice*  
*Carminex*  
*Catgut*  
*Cerebrinin*  
*Corpus Luteum*  
*Diasase (Animal)*  
*Digestive Ferments*  
*Duodenin*  
*Enzymes*  
*Galactis*  
*Hæmoglobin*  
*Insulase*  
*Lactated Pepsin*  
*Lecithin*  
*Liver*  
*Lymphatic*  
*Mammary*  
*Mam-Ovarian*  
*Meduphites*  
*Multigland*  
*Myelin*  
*Orchic*  
*Ovarian*  
*Ovarian Residue*  
*Ovo-Testis*  
*Ovo-Thyroid*  
*Ox Gall*  
*Pancreas*  
*Pancreatin*  
*Parathyroid*  
*Parathyroid Compound*  
*Pepsin*  
*Peptone*  
*Pineal*  
*Pituitary, Whole Gland*  
     " *Anterior Lobe*  
     " *Posterior Lobe*  
     " *Compound*  
*Placenta*  
*Prostate*  
*Red Bone Marrow*  
*Renal Cortex*  
*Spleen*  
*Supra Medulla*  
*Suprarenal*  
     " *Compound*  
     " *Cortex*  
*Suprarenalin*  
*Thromboplastin*  
*Thymus*  
     " *Compound*  
*Thyropophosis*  
*Thyroid*  
*Thyro-Manganese*  
*Trypsin*

GLANOID

## COUNTER LINES of Proved Ready Selling Value

Rennet Powder

Rennet Tablets

Rennet Essence

Beef Juice

Beef Extract

Fluid Beef

Beef Cubes

Peptonising Powders

Peptonising Tablets

Strength Ovals

Pepsin Compound Pills

Pep-o-lac Tablets

LABORATORY DEPARTMENT  
**ARMOUR AND COMPANY**  
LIMITED

ARMOUR HOUSE, St. MARTIN'S-LE-GRAND,  
LONDON, E.C.1.

Telegrams: "ARMOSATA-CENT," LONDON.

Telephone: NATIONAL 2424.

WE CLAIM  
that the specially selected

**"PRIORY"**

## **HONEYCOMB SPONGES**

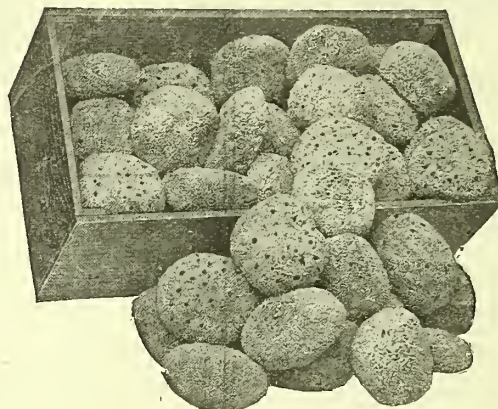
are unequalled in  
**BODY, SHAPE & TEXTURE**



By reason of their **Uniformity**  
they sell down to the last one.  
Our customers tell us that once  
tried, they can always confi-  
dently repeat '**Priory**' Sponges

# **SPONGES**

AN  
INTERESTING  
**OFFER**



**LET US SEND YOU**

a Trial Parcel containing

2 "Priory" Sponges	at 4/-	dozen ..	s. d.
2 "	at 8/-	" ..	0 8
2 "	at 12/-	" ..	1 4
2 "	at 16/-	" ..	2 0
2 "	at 24/-	" ..	2 8
			4 0
Post and Packing Free			Value 10 8

If you are satisfied and within ONE MONTH send us an order to the minimum value of £5 (see parcel No. 1 for suggested assortment) the Trial Parcel (value 10/8) will be FREE. If your order is for minimum value of £2 10s. (see parcel No. 2 for suggested assortment) the Trial Parcel (value 10/8) will be charged at 7/- only.

**PLEASE NOTE** that a special order form is necessary. This will be enclosed with the Trial Parcel.

The allowances above mentioned will be deducted when invoicing the £5 or £2 10s. parcel.

The parcels will be sent on Three Days' approval, Carriage Paid one way.

### **Parcel No. 1.**

	£	s.	d.
15 at 3/- dozen ..	0	3	9
12 at 4/6 "	0	4	6
18 at 7/6 "	0	11	3
18 at 12/- "	0	18	0
12 at 16/- "	0	16	0
6 at 24/- "	0	12	0
3 at 30/- "	0	7	6
3 at 36/- "	0	9	0
2 at 48/- "	0	8	0
2 at 60/- "	0	10	0
	£5	0	0

### **Parcel No. 2.**

	£	s.	d.
6 at 3/- dozen ..	0	1	6
12 at 6/- "	0	6	0
12 at 8/- "	0	8	0
12 at 12/- "	0	12	0
6 at 18/- "	0	9	0
3 at 24/- "	0	6	0
3 at 30/- "	0	7	6
	£2	10	0

**POST THIS COUPON**  
**AND SECURE YOUR**  
**TRIAL PARCEL**

Please forward **TRIAL PARCEL** of  
**"PRIORY" HONEYCOMB SPONGES**

Name.....

Address.....

C.D.

**SOUTHALL BROS. & BARCLAY LTD. LOWER PRIORY, BIRMINGHAM**



**F**ormerly, goods were expected to sell themselves, but in these intensive post-war days of King George V demand must be made. It is not enough to make goods. The demand for them must be increased. Advertising is a business maker because it moulds public opinion and creates the demand of to-morrow. And this great selling force is already winning more and more satisfied customers for Moorland Brand Indigestion Tablets. It is sending more new and very profitable buyers to every Pharmacist. So why not link up *your* pharmacy with this determined selling effort? Why not go forward with Moorlands?

PUT A DISPLAY IN YOUR WINDOW  
SO THAT THE PUBLIC MAY SEE THEY  
CAN BUY THEIR MOORLANDS FROM  
YOU. WE HAVE A VERY GOOD SUPPLY  
OF SHOW - MATTER AVAILABLE

W. B. CARTWRIGHT LTD.  
RAWDON NEAR LEEDS.



# LISTERINE BRAND ANTISEPTIC *and* LISTERINE TOOTHPASTE

as the two most popular proprietaries in America, will be in greater demand than ever this Summer, as a result of the large influx of American visitors.

Make sure you are well stocked and taking advantage of the best terms offered.

*Send for full particulars to :—*

**S. Maw, Son & Sons, Ltd.,**  
Aldersgate St., London,  
and Barnet.

*Selling Agents for*

*Great Britain and Ireland*



# Maw's Page



## The Test

Half the country awaits breathlessly the result of the Test—clamouring eagerly for newspapers to read a single line of type in the *Stop Press* :—"Hobbs, not out, 50"; "D. G. Bradman, b. Tate, 8."

Cynics may smile and tell us we are going to the dogs; we know better. This is more than a game. There's something noble in it, something that displays man's best qualities, courage, coolness, cheerfulness in adversity, perseverance, tenacity, the will to win.

A battle of giants. It makes most ordinary county games look almost like lamp-post cricket. Only the very best can live up to the Test standard.

Here's a lesson for your staid business man who refuses to get excited, for it's very much like that in business—very

few can stand the Test. There are plenty of batsmen who can score on a good wicket or bowl on a difficult one, but there are few who can keep their end up when the wickets are falling and the bowling is the very devil.

Few businesses stay long enough to put up a big score and be really useful to their side. Some are too greedy for runs, some not sufficiently enterprising. Some are badly skippered, or have no definite policy. The first difficult ball beats them and out they go.

The few that remain are the ones to watch, the stayers. It is these that may be depended upon when things look really black. These are the Chapmans, the Hobbs, the Sutcliffes, and the Tates of business. They save the side.

*For one hundred and twenty-three years the House of Maw has served the interests of the retail pharmacist faithfully and efficiently—*

# 123 not out

S. Maw, Son & Sons, Ltd.,  
Aldersgate St., London,  
and Barnet.







# The 'Aspro' Review

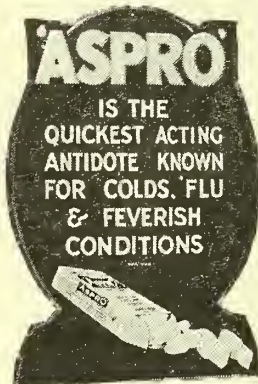


17% Extra Profits.

"British to the Core"

New Series Display Features.

Send **COUPON** below for this New  
**'ASPRO' Window Display**



Printed in ten  
colours



By featuring 'ASPRO' Displays in your window you link up your store to the largest Medicine Publicity Campaign in the World

Following the success of our recent Man-Nurse and Child Display for Chemists and the many letters of appreciation received we have pleasure in announcing a new 3-piece series now ready for distribution. These productions combine suggestion and reasons why customers should enter your store to purchase 'ASPRO.' The sooner you co-operate by featuring 'ASPRO' Displays—the greater is your opportunity of benefiting by the consumer demand created by our huge advertising campaign. Be first in the field by showing this new 3-Piece Display. Simply fill in name and address and post to Gollin & Co. Pty., Ltd., "Aspro" Dept., Slough, Bucks. The displays will be despatched to you promptly.

**17% Extra through buying 'ASPRO' on Bonus Terms.**

The 'ASPRO' bonus on unstamped 'ASPRO' is as follows:—On a one gross order for 10's the bonus is one dozen packets; on half-gross order,  $\frac{1}{2}$  dozen packets. Half-gross 10's is the minimum order accepted for Bonus purposes. On a 1 gross order for 27's the bonus is 2 dozen packets, on a half-gross order 1 dozen packets, and on a quarter-gross order  $\frac{1}{2}$  dozen packets. A quarter-gross order is the minimum quantity. There is no bonus on 5's or 60's.

The conditions are that the Chemist who buys on these terms undertakes to display 'ASPRO' Advertising matter in his shop window for 14 days, and sell at advertised prices. As 'ASPRO' is so extensively

advertised, this action will not only bring customers into the Chemist's shop to purchase 'ASPRO,' but should enable the chemist's staff to make other sales to these customers. Acceptance of Bonus is considered acceptance of conditions regarding display and selling prices. For Bonuses it is not necessary to buy both sizes at the same time, i.e., single lots 6 dozen 10's or 3 dozen 27's will qualify the Chemist.

You order as follows:—We do not sell direct to the Chemist. All our business goes through Wholesalers. Orders may be sent either to your Wholesaler or direct to us. If to us, state the name of your Wholesaler, so that we may forward the order on and the Bonus will be supplied direct by us.

**Ordinary prices for unstamped 'ASPRO' are as follows:—**

- 3d. size (containing 5 tablets) 2/3 doz.  
6d. " (containing 10 tablets) 4/6 "  
1/3 " (containing 27 tablets) 11/6 "  
2/6 " (containing 60 tablets) 21/- "  
Less 2 $\frac{1}{2}$ % 30 days.

NOTE.—The 1/3 size contains two extra tablets. 2/6 size ten extra tablets.

'ASPRO' consists of the purest Acetyl Salicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Made by ASPRO LIMITED,  
SLOUGH, England.

**Agents:**

**GOLLIN & CO. PTY. LTD.**

('Aspro' Dept.),

**SLOUGH, BUCKS.**

'Phone: Slough 608.

No proprietary right is claimed in the method of manufacture or the formula.

**COUPON for New 3-Piece 'ASPRO' Display.**  
GOLLIN & Co. Pty. Ltd. ('Aspro' Dept.), SLOUGH, BUCKS.  
Please send me above displays.  
Name .....  
Address .....



C.S.D.





The absolute purity of "Sustenoid" brand Yeast Tablets appeals to the public.

Judging from the large number of repeat orders received, chemists are finding this line a "best-seller."

The general "get-up" is neat and dignified. The display outers are silent salesmen in themselves, and in addition extremely attractive showcards and show material are supplied free.

An outlay of 35/- shows a profit of 25/-.

Special terms for large quantities. Order a trial supply now and keep your till busy.

*A  
Line  
worth  
noting*



SEND FOR A FREE SAMPLE.

Make a personal test. Full size bottle sent on receipt of p.c.

# "SUSTENOID"

BRAND

## YEAST TABLETS

**THOMPSON & CAPPER WHOLESALE LTD**  
MANESTY BUILDINGS, COLLEGE LANE, LIVERPOOL

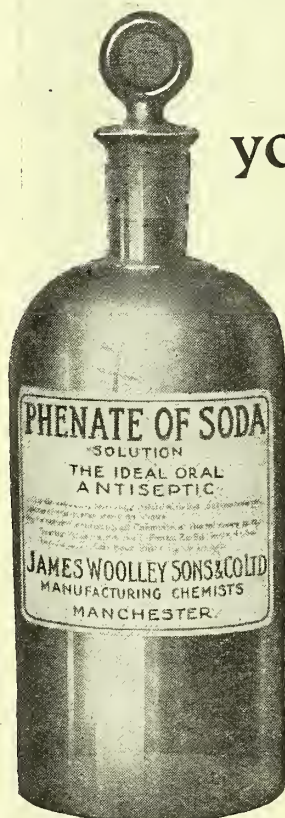


More and more Dentists  
are regularly prescribing

# PHENATE OF SODA SOLUTION

(WOOLLEY)

How are your stocks?



**P.A.T.A.  
RETAIL PRICES**

5 OZ. 1/6    10 OZ. 2/9  
20 OZ. 4/6    40 OZ. 7/-

**BONUS**

*Write for particulars  
of Bonus Offer for  
Window Display.*

London and South of England Distributing Agents :  
Messrs. MAY, ROBERTS & CO.

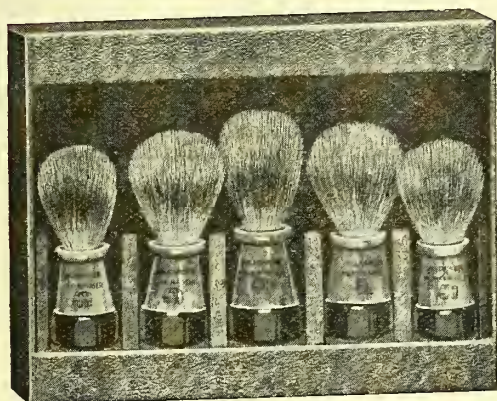
**JAMES WOOLLEY**  
SONS & Co. Ltd  
VICTORIA BRIDGE, MANCHESTER



# WINDOW DISPLAY

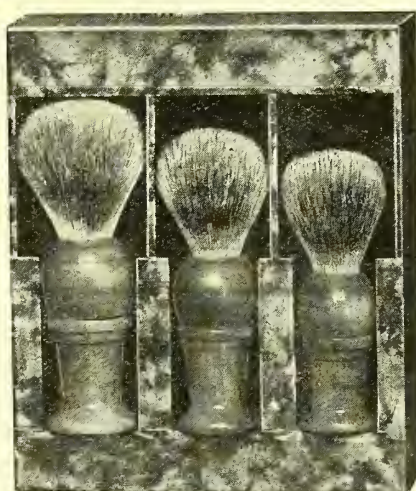
## OR COUNTER

### SHOW!



THESE THREE  
CASES PROVIDING A  
COMPLETE ASSORT-  
MENT OF SHAVERS  
POST FREE

for  
72/-



Your men Customers want  
a new SHAVER for the  
Holidays - - - - -  
Their women-folk know  
it—and buy - - - - -

HELP THEM to remem-  
ber

HELP THEM to choose

MAKE THINGS EASY  
FOR THEM TO MAKE  
PROFIT FOR YOU

TOP. No. 4669. Five brushes in three sizes. Pure badger heads in Castle pattern. Hornite handles, black base. Bristles are "fast-for-ever" in vulcanite ... **Complete for 17/-**

Individual prices	small	medium	large
Per dozen ...	33/-	42/-	54/-

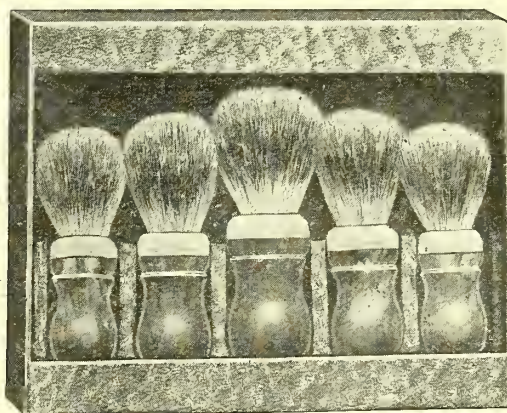
BOTTOM. No. 8860. Five brushes in three sizes. Large head of pure badger, set fast. Hornite handles with white collar ... **Complete for 26/-**

Individual Prices	small	medium	large
Per dozen ...	48/-	60/-	96/-

MIDDLE. "A.F. Series." Three brushes (5 $\frac{1}{8}$ ins.; 4 $\frac{3}{4}$ ins.; and 4 $\frac{1}{8}$ ins.) with very full heads of pure bristles, mounted in Hornite vase-pattern handles, with wide base. Lettered "Pure badger, sterilized, non-split, made in England."

Individual Prices	small	medium	large
Per dozen ...	84/-	120/-	168/-

**Complete for 30/-**



**AYRTON, SAUNDERS & CO. LTD.**  
34 Hanover Street                      ::                      LIVERPOOL, Eng.

**Roboleine**  
THE FOOD THAT BUILDS THE BODY

ROBOLEINE contains all essential vitamins:— B. O. N. E. MARROW: Yellow marrow from the long bones to stimulate formation of red corpuscles and so strengthen the whole nervous system. Red marrow from the rib bones to stimulate formation of white corpuscles and increase resistance to disease. MALT, a natural laxative and source of energy. EGG YOLK, containing lecithin, the greatest nerve food known. LEMON JUICE, neutralised for building bone and preventing skin trouble.

ROBOLEINE corrects Metabolism and is recommended in cases of Malnutrition, Debility, Sleeplessness, Loss of Weight, and in all Tuberculous conditions; also to Nursing and Expectant Mothers as a galactagogue, and as an adjunct in the Dieting of Infants, etc., etc.

ROBOLEINE is concentrated nourishment that revitalises the body and feeds the nerves. Easily assimilable, it is the best reconstructive tonic food available.

WRITE FOR TERMS TO  
**OPPENHEIMER SON & Co., Ltd.,**  
HANDFORTH LABORATORIES,  
CLAPHAM ROAD,  
LONDON, S.W.9



# MYSORE GOVERNMENT SANDALWOOD OIL

DISTILLED FROM SANTALUM ALBUM, LINN.

*This Mark is the*



*GUARANTEE*

**Trade Commissioner for Mysore in London**  
Grand Buildings, Trafalgar Square, LONDON, W.C.2

Telephone: Gerrard 4412.





*Drink your own health every day in*

# MINERAL SPRING

**1½**      **2½**

**A REFRESHING  
NATURAL LAXATIVE**

An attractive cut-out card for your counter. It is 14½" high and well printed in 10 colours. A copy will be included with your order or sent post free on request.

To EXPORT BUYERS—All orders and enquiries should be addressed to our Sole Export Agents  
Wm. ALFRED JONES Ltd., West India House, Liverpool

**THOMAS KERFOOT & CO LTD**  
**BARDSLEY VALE, LANCASHIRE,**  
**& Bardsley House, London, N.1**  
ESTABLISHED 1797.

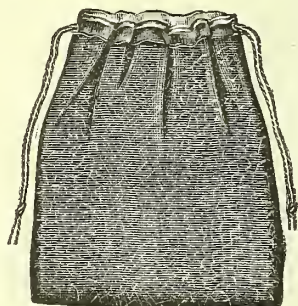
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COPYRIGHT

# SPONGES AND HOLDALLS



BRITISH MADE



WRITE FOR PRICE LIST

Manufactured by  
**William Toogood**  
LIMITED  
77 SOUTHWARK STREET  
LONDON, S.E.1

## SPECIAL OFFER

by

**The Butywave Co.**

10 TACHBROOK ST., VICTORIA, LONDON, S.W.1

To introduce the new gumless Hair Fixative for Men—

**“SET”**

we are offering the following special bonus parcel of quick selling lines:—

With each parcel of BUTYWAVE preparations made up as follows, there will be given FREE 1-dozen SET.

	Cost	Sold
4-dozen 6d. Butywave Shampoo	16 0	1 6 0
(13 supplied as 1 dozen)		
1-dozen 1/9 Butywave ..	4 0	5 3
1-dozen 2/6 Hair Waving and Setting Lotion ..	5 6	7 6
FREE 1-dozen 1/6 SET ..		4 6
	1 5 6	

Less 10% discount for cash in

30 days 2 6

£1 3 0 £2 3 3

**PROFIT 20/3**

Equal to 47% on turnover—  
88% on cost.

As each bottle of SET retails for 1/6, this is a present of 4/6 worth of goods.

SET is the perfect Fixative. No Gum, No Oil, No Grease  
Order your Bonus Parcel NOW!



IF IT  
SHAVES  
IT'S  
WANIE

The Blade that SELLS as it SHAVES—  
**“LIKE GREASED LIGHTNING!”**

Obtainable from all leading Wholesalers.

FREE SAMPLE ON REQUEST.

Dept. C.D., WANIE DISTRIBUTING CO.,  
89 Aldgate High Street, E.C.3.

Irish Free State Agents:

Messrs. W. A. FREEDMAN & CO., 21, Merchant's Quay, DUBLIN.

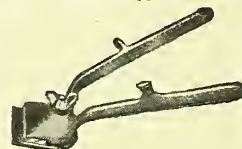
**HAIR**

**BURMAN  
CLIPPERS**

For SURGICAL  
and VETERINARY  
PURPOSES.

HAIRDRESSERS' CLIPPERS

The British-Made  
Hair Clipper.



Dainty Shingling  
Clippers for  
Ladies' use.

**BURMAN & Sons, Ltd., BIRMINGHAM**





## 3 Tubes FREE TO THE DOZEN

ON one order placed before June 30th, 1930, every chemist will receive a special bonus offer of 3 Tubes free to the dozen, in addition to the usual  $33\frac{1}{3}$  trade discount and 5% cash discount. Minimum quantity three dozen (1/6 size, 3/- size, or assorted). Maximum order £10 on trade prices.

YOU PRACTICALLY DOUBLE YOUR MONEY under this special bonus offer. Order NOW—offer definitely expires June 30th, 1930.

ALL WE ASK OF YOU in exchange for this offer of Free Goods is a prominent window display of a beautiful new Veet Centrepiece No. 130 for at least 14 days.

**ONLY 7  
MORE  
DAYS  
DON'T MISS  
THIS OFFER**

### SPECIAL ORDER FORM.

*Not valid after June 30th.*

DAE HEALTH LABORATORIES, Ltd.  
68 Belsover Street - London, W.1.

.....1930

Send at once on your Special Bonus Terms.....dozen Tubes Veet (1/6 size).....dozen Tubes Veet (3/- size) with **BONUS OF THREE TUBES TO THE DOZEN**, in return for which I agree to display prominently in my window for 14 days before July 15th, 1930, Veet Centrepiece No. 130.

Name.....

Address.....

If Goods are to be invoiced  
through a Wholesaler give name.....



# a big public waiting for POPULARLY PRICED manicure necessities



**BEAUTY** articles on the care of the hands in every paper, a big demand for manicure necessities from all classes. . . . Here are lines that will bring you fresh customers—customers who demand reliable toiletries at a **POPULAR PRICE**. There's big business to be done, see that it comes to you!

AMAMI Manicure Sets, retailing at 1/9 and 3/6.  
AMAMI Cuticle Fluid, retailing at - - - 1/-.  
AMAMI Nail Stone, retailing at - - - 6d.

TO SHOW THEM IS TO SELL THEM!

## AMAMI MANICURE

From your usual wholesaler or direct from  
PRICHARD & CONSTANCE (MFG.) LTD., 11, Broad St., W.C.2

Established 1795.

## LAUTIER FILS

Works: GRASSE (France) & BEYRUT (Syria).

Essential Oils and Synthetics.  
All Raw Materials for Perfumery.

Olive, Peach Kernel, Sweet Almond Oils  
Floral Waters.

Sole Agents for:—

**PAOLO VILARDI** Messina Oils:  
Lemon, Bergamote, Sweet Orange, etc.

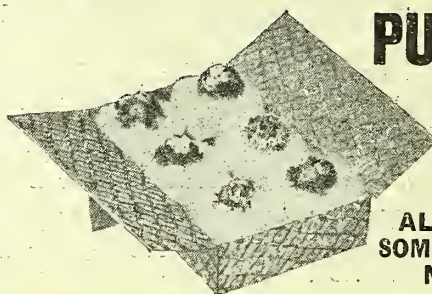
**S.A. FLORFE** Spanish Oils:  
Spike Lavender, Rosemary, Thyme,  
Pennyroyal, etc.

**C. MINTCHEFF & KETCHEDJIEFF**  
Otto of Rose. Bulgarian.

Wholesale and Export only.

LAUTIERFILS, Ltd., 127 Commercial St., London E.1.  
Tel. Add.: "Lautiert, Fhone, Lon.Con." Phone: Fishopgate 8271/2

## PUFFS



ALWAYS  
SOMETHING  
NEW

**WILLIAMSON BROS., LTD.**

Hop. 3419. 177 Southwark Bridge Rd., LONDON, S.E.1

WE MANUFACTURE SAFETY RAZOR BLADES  
FOR ALL CLASSES OF TRADE.

POPULAR | **EMMAH** RETAIL AT 2d. each

"P.C." - - - 1d. each  
PLANET - - - 3d. each

WITHOUT EQUAL IN THEIR CLASS.

Send for particulars of our new FREE GIFT SCHEME  
in connection with PLANET BLADES.

Enquiries and quotations promptly attended to.

**EMMAH PRODUCTS, LTD.**

14-16 LOWER CLAPTON ROAD, LONDON, E.5



# MERCOLIZED WAX

— : for the Complexion : —

and

# STALLAX

— : a Shampoo : —

**TWO** substantial and well-advertised lines which show a handsome profit to the Retailer, and, moreover, may be stocked fearlessly owing to the Manufacturers' most liberal Sale or Return Guarantee.

**Both** are obtainable in two sizes, and their reputation and sterling value assure a steady turnover.

*Order through your Wholesaler, or direct from:*

**DEARBORN (1923) LIMITED**  
**37 GRAY'S INN ROAD, LONDON, W.C.1.**

Telephone - - - HOLBORN 9669



**A- /  
HEAD  
OF ALL  
OTHERS**

There's no hair fixative so good as Anzora—and your customers know it! To offer them a substitute is to insult their judgment—and to lose not one sale, but many. Be on the safe side and keep a good stock of Anzora—the finest hair fixative—and British.

**ANZORA**  
**MASTERS THE HAIR**

Anzora Cream, for greasy scalps, will not soil hat linings or pillows. Anzora Viola is for dry scalps and contains a little oil of violets.

## TRADE TERMS

12/- doz.  
 Retail at 18/-  
 20/- doz.  
 Retail at 30/-

If unobtainable from your wholesaler write direct to

**ANZORA PERFUMERY CO., LTD.**  
 London, N.W.6.

A supply of attractive Showcards and Cutouts for Window Display sent post free.

**GOSNELL'S**  
 ORIGINAL

# Cherry Tooth Paste



IN TUBES

10d. & 1/3

IN POTS

1/6 & 2/-



## Assorted Bath Salts

**JOHN GOSNELL & CO., LTD.**

*Perfumers and Fine Soap Makers*

**211-215, Blackfriars Rd., S.E.1**

**LONDON**  
 Established 1760

The Public are Calling

- for

# PETAL DUST

"Wherein the subtle savour of the Flowers  
sublimely dwells."

THE GREAT FLORAL AIR PURIFIER

A Trial will convince you that—

**PETAL DUST**, when once shown, creates its own demand, and is therefore a valuable adjunct to every "go-ahead" store.

**PETAL DUST**, when displayed prominently upon your counter, will attract prudent customers by the fragrance of its unique odour, which to-day is of such universal admiration.

Retails in packets at 4d. and 8d. each.

Attractive Advertising matter free on request.

Obtainable through all the usual Wholesale Houses or  
from Sole Producers:—

**The Rosmarine Manufacturing Co.**  
LONDON, S.E.1.



## STRONG PUBLICITY

The extended National Advertising for "Eclipse" Blades, combined with the new Display Card, is creating increased sales. Get your share of this business by displaying in your window the attractive show matter sent gratis on request.

5  
FOR  
1/8

Place your order now through  
your usual wholesaler, or direct  
from the manufacturers.

3  
FOR  
1/-

Made by  
**JAMES NEILL & CO. (Sheffield) LTD.**  
Crucible Steel Manufacturers • SHEFFIELD.

## "ODENTIC" PLATE BRUSH

Regd. No. 417637.

From all  
Wholesalers.

Packed in 1/2-dozen Display Boxes.

Manufacturers:

**W. R. Speer & Son** (EST. 100 YEARS)

215 DALSTON LANE - - LONDON, E.8

Agent for S. Africa—C. GORDON DAVIES & CO.,  
National Bank Buildings, Pritchard Street, Johannesburg.

## G. B. KENT & SONS, LTD.

Are known the World over as  
the Largest Manufacturers of

# BEST BRITISH BRUSHES

Please write for full Particulars to:—

75 FARRINGTON ROAD, E.C.1.

The "ARISTOCRAT" of the  
three hole popular priced Blades.



8 6 per GROSS.

Write us, when we will gladly send you  
1 dozen samples free of charge. Obtainable  
from all wholesalers or direct from Sole  
Agents—

**ALFRED FRANKS & CO.**  
11 BARTLETT'S BUILDINGS, E.C.4

## THREE SPECIAL OFFERS

1. VALET HANDY PACK Sets. Razor, 3 blades, 1 stroP,  
half-size shaving cream,  
1 doz. complete, 22/-, 3 doz., complete, 20/6.  
Blades, per box, 36/-, 72 packets, 34/3.

All other Valet Products stocked.

2. GILLETTE BLADES, 18/3 per box, 20 box lots, 17/1  
per box. Old type razors in stock.
3. EVER-READY RAZOR with 2 blades in attractive  
carton, 5/6 per doz.

Probak Blades, 26/7 per box, 72 packets, 26/- per box,  
Souplex Blades ... 12/6 per gross,  
Amo Blades, 8/- per gross, Wanie, 9/6 per gross,  
Darwin Blades, all types ... 29/3 per box,  
Myatt Blades ... 16/8  
Wardonia, Special offer, 24 packets, blades 24, shaving  
sticks, 19/- complete.

All types of Safety Razor Blades stocked.

WRITE FOR LIST.

## THE NEW FLAT

**Dhaussy Unspillable**

**LOOSE POWDER BOX**

Retails 3/6 each P.A.T.A.

Trade price 28/- doz.

In Coral; Wedgewood Blue,  
Turquoise, Sage Green, Matt  
Black, Nickel and Gilt, Plain  
metal or engine turned.

Attractive Showcards on request.

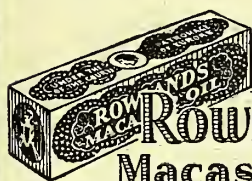
**Dhaussy Powder Box  
CO., LTD.**

11 BARTLETT'S BLDGS.  
E.C.4



## For thinning hair

Recommend Rowland's Macassar Oil, the favourite of 137 years. It keeps the hair healthy, and staves off greyness and baldness.



RETAIL,  
3/6, 7/- & 10/6

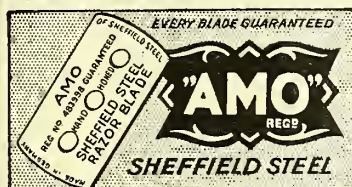
P.A.T.A.

**Rowland's  
Macassar Oil**

Red for  
dark hair  
Golden  
for fair or  
grey hair

A. ROWLAND & SONS, Ltd., 112 Guilford St., London, W.C.1  
RM2T

## AMO THE INCOMPARABLE BLADE THAT SHEWS 120% PROFIT



DISPLAY  
AND SELL  
"AMO"  
SHAVING  
PRODUCTS

Nationally Advertised. OBTAINABLE OF ALL WHOLESALERS.  
FREE SAMPLE BLADE AND ILLUSTRATED LIST ON APPLICATION TO—  
**AMO SAFETY RAZOR BLADE CO., Ltd.** Broad St. House  
LONDON, E.C.2

## TATCHO Sample Size 6" THE HAIR RESTORER

PROMOTES, PRODUCES, BEAUTIFIES THE HAIR  
TATCHO Laboratories, 5 Great Queen Street, London, W.C.2

6 Bottles in Case for  
Counter Display,  
4/- PER DOZ.

## BALLOONS

PRINTED with your  
ADVERTISEMENT  
or BLOCK.

COMBS, PRESENTS, LEATHER GOODS, NOVELTIES, ETC.

Deal from the oldest established firm in the Trade:

"STANBERTS," STANBERT HOUSE, (Dept. "P"),  
377 KENNINGTON ROAD, S.E.11 Reliance 1762  
STOCK "JAZZO," THE MAGIC DANCE FLOOR POLISH.

## "Ladye Jayne"

### SLUMBER HELMETS & HAIRPINS

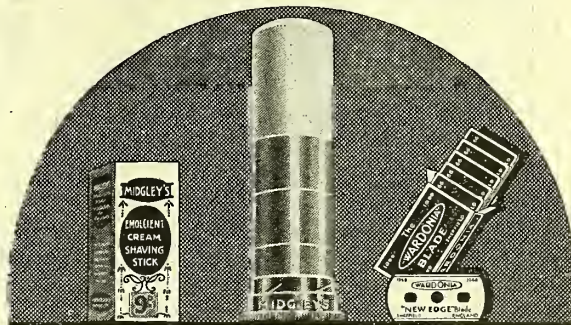
ARE NECESSITIES FOR THE  
PRESERVATION OF EVERY LADY'S  
HAIR AND ARE NOW SOLD BY  
MOST GOOD CLASS CHEMISTS.

Send for Samples and Prices.

JARRETT, RAINSFORD & LAUGHTON, LTD.  
ALEXANDRA WORKS BIRMINGHAM

Sole Manufacturers of  
"LADYE JAYNE" "LADYE FAYRE"  
Hairpins and Hairgrips. Compacts with unbreakable powder.

# FREE!



Genuine 9d. Midgley's Full-size  
Shaving Stick with each 1/3d.  
packet of Wardonia "New Edge"  
Blades purchased.

That's the offer thousands of retailers are  
making good profits on. Widely advertised in  
the National and Provincial Press. Generous  
supply of Window and Counter Display Matter  
FREE with every order. Delivery guaranteed  
of first order whatever quantity, so order  
generously and at once from your usual  
wholesaler or direct

## Enormous Demand Order at once 50% PROFIT FOR YOU

## TRADE TERMS:—

- 1 to 4 Cartons  
(per carton) 21/-
- 5 Cartons  
(per carton) 20/-
- 10 Cartons  
(per carton) 19/-
- 20 Cartons  
(per carton) 18/-

How Packed:  
In attractive Display Carton  
CONTAINING—

**24—PACKETS of 5  
WARDONIA Blades  
& 24-9d. Midgley's  
Shaving Sticks.**

RETAIL VALUE OF  
ABOVE CARTON **30/-**



FOR TWO MONTHS ONLY

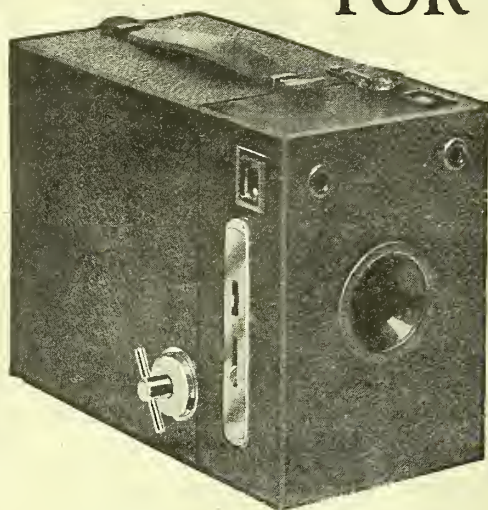
Sole Makers:

## THOMAS WARD & SONS LTD

Wardonia Works, Sheffield, England



# FOR YOU TO TRY YOURSELF



A BRITISH MADE 'CORONET' CAMERA

Complete with portrait attachment,  
side and upright viewfinders,  
time and instantaneous shutter.

AT 7/6 TO THE PUBLIC

JUST FILL IN THE COUPON.

Please send me at this address, without charge or obligation, one No. 2 'Coronet' Camera, which I will undertake to return if I am not interested.

Name .....

Address .....

THOS. CHRISTY & CO.

4-12 Old Swan Lane, E.C.4

## STOCK & RECOMMEND



### THE POULTRY FARMER'S BEST FRIEND

Positively cures and prevents Colds, Catarrh, Bird Pox, and ROUP in Poultry. Used with unfailing regularity by the World's leading Poultry Breeders. ALSO 'BLACK LEAF 40,' the Magic MASS TREATMENT for Poultry Lice. And VISOLEUM, the purest and best Irradiated Cod Liver Oil for Poultry use. Full particulars from

VISOL LABORATORIES, Great Barr, Nr. Birmingham

## A LINE THAT SHOWS GOOD PROFIT



and ensures the confidence of your customers.  
3/6 per doz. to the Trade at 6d. each.  
From LEWIS SMITH, M.P.S., Hereford.

**BONVET**  
DOG POWDERS

THE SCIENTIFIC CURE FOR  
**DISTEMPER**  
SKIN DISEASES  
CONSTIPATION  
LOSS OF APPETITE  
LIVER TROUBLE  
WORMS

## CHEMISTS' FITTINGS OF EVERY DESCRIPTION. NEW AND SECONDHAND.

F. MAUND & E. BERG (SHOWCASES) LTD.,  
175/9 and 336 OLD STREET, LONDON, E.C.1

# BATTLES SHEEP DIPS

*Specially packed for the Chemists' Trade.*

**POWDER, PASTE & LIQUIDS** (Poisonous and Non-Poisonous), **WEED KILLERS, WORM KILLERS, LAWN SAND, DISINFECTANTS, SUPERFINE LYSOL, WARBLE SMEAR.**

*Let us quote you for your requirements.*

**BATTLE, HAYWARD & BOWER, Victoria Chemical Works, LINCOLN.**



# SEE WITH EASE

## ANTI-GLARE SPECTACLES

Glazed  
with  
Sir Wm.  
Crookes'  
Chance's  
Glass



Scientific  
Sun  
Spec-  
tacles  
which  
appeal  
to the  
Con-  
noisseur.

*We can supply Carded Assortments, mounted as per illustration, on an attractive Show Card, as follows :*

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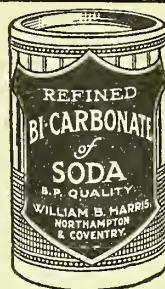




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Will Readily  
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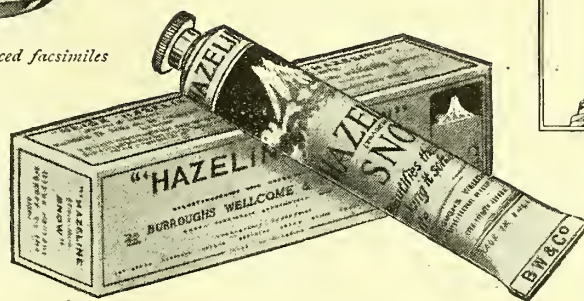
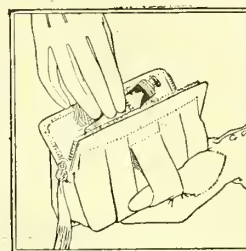
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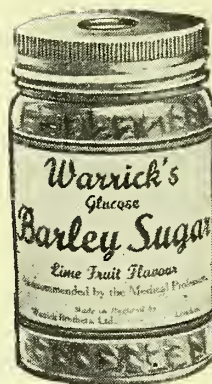
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*Warrick's the Chemists of Quality*



# THE CHEMIST AND DRUGGIST



A WEEKLY JOURNAL OF PHARMACY,  
THE DRUG, CHEMICAL & ALLIED TRADES.

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## English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

### Lancashire Analyst's Report

The latest annual report of the Lancashire county analyst (Mr. G. D. Elsdon, B.Sc., F.I.C.) states that, during the year 1929, 4,993 samples were submitted under the Food and Drugs (Adulteration) Act, 1928. Of these, 2.8 per cent. were returned as adulterated. The percentage of adulteration for the year is slightly less than that for the year 1928 (but higher than those for 1926 and 1927). It has been suggested, the report states, that the cost and labour involved in the administration of the Food and Drugs (Adulteration) Act would be reduced appreciably by a preliminary investigation of "informal" samples by rough sorting methods only. It cannot be too strongly stated, or too often reiterated, continues the report, that the application of rough sorting methods is to be strongly deprecated. During the year four samples of ammoniated quinine tablets were received, of which two were returned as unsatisfactory on account of a considerable deficiency in ammonia. All the twenty samples of borax were found to be of satisfactory quality. Fifty-seven samples of cream of tartar were examined, and of these three were returned as adulterated. Miscellaneous samples examined included pills, tablets and mixtures. The report concludes with nineteen pages of statistical data.

### Advertising Convention

At the annual Convention of those interested in advertising, to be held at Hastings on June 21-25, there will be seventy speakers, including among others Mr. J. H. Thomas (Secretary of State for the Dominions), Sir Oswald Mosley, Sir Eric Geddes, Lord Riddell, and Lord Burnham. A session specially devoted to matters connected with the industrial Press will be held on June 24, under the chairmanship of Mr. E. A. Gatehouse. The principal speaker on this occasion will be Professor Henry Clay, M.A., economic adviser to the Securities Management Trust and Professor of Social Economics in the University of Manchester. The sub-

ject of Professor Clay's address will be "British Industry's Message to the World"; others taking part in the discussion on the importance and influence of trade publicity include Sir Eric Geddes, Mr. Holbrook Jackson, Mr. C. Pinkham and Mr. Percy A. Best.

### End of a Pharmacy Course

At the meeting of the Swansea Education Committee, on June 12, a subcommittee reported the receipt of a letter from the secretary of the Pharmaceutical Society explaining that the Society could not see its way to alter the decision to withdraw approval for the Chemist and Druggist Qualifying examination course at the end of the present session. The subcommittee noted the decision with regret, and the director submitted suggestions as to the utilisation for other purposes of the rooms in the new premises set apart for pharmacy and of the existing pharmacy room. In the course of the discussion it was stated that about twelve students were involved and that the course was one of the most successful in the College. After a motion for reconsideration by the subcommittee had been defeated, the report was adopted.

### Contracts

The following tenders have been accepted by the bodies named:—

Dover Town Council.—Mr. J. Weir, chemist and druggist, drugs, etc.

Glossop Town Council.—James Woolley, Sons & Co., Ltd., drugs, etc.

Slough Urban Council.—Mr. R. J. Hoare, chemist and druggist, drugs, etc.

### Birmingham

Many local chemists are on holiday.

One-way traffic in John Bright Street is causing complaints of serious inconvenience from traders.



## Liverpool

Mr. W. J. Williams (Francis Newbery & Sons, Ltd.) has been spending a brief holiday on Merseyside.

Many pharmacist freemasons attended the recent meeting in Liverpool of the Provincial Grand Lodge of West Lancashire.

The conferment of the Order of the British Empire on Mr. W. G. Hodgson, a Liverpool Health Insurance official, has greatly pleased local chemists.

The eightieth annual report of the Liverpool Chemists' Association, which has recently been issued, gives a *résumé* of the activities of that body during the past year.

## Sheffield

Messrs. J. T. Appleton and H. G. Williams have been officially thanked for their services in taking the crippled poor and blind to the seaside.

The recent golf match between Sheffield and Manchester chemists, played at Bamford, Derbyshire, resulted in a win for the former by six games to two, two being halved.

## Miscellaneous

**THEFT OF CAMERAS.**—A window at the premises of Mr. B. Bard, chemist and druggist, Cricklewood Lane, London, N.W., was smashed on June 12, and some cameras were stolen.

**BRITISH DENTAL ASSOCIATION.**—The College of Arms has issued an authorisation granting a coat of arms to the British Dental Association. The design of the ensign and supporters is more or less conventional, the figures on each side representing St. Damian and St. Apollonia respectively.

**POISONING.**—An inquest was held at Tenbury, on June 14, on the body of Mr. Geoffrey V. Searle, master of the local workhouse, who was found dying under a hedge. It was stated that within two days of purchasing 200 aspirin tablets (which were charged to the workhouse account) he took all of them. An open verdict was returned.

**SUMMER CURE AT BATH.**—Our attention has been drawn to the special tickets which are issued by the Spa Committee at Bath during the months of June to September inclusive at a fee of £3 3s. The fee covers a three weeks' course (maximum number of weekly treatments, six). Further particulars may be obtained from Mr. John Hatton, Spa Director, Bath.

**SHOPS ACTS ORDERS.**—The trading hours at Ilfracombe have, by an Order, been extended to 10.30 p.m. on Saturdays and to 10 p.m. on other days of the week during July, August and September.—Hastings Town Council has made an order suspending the obligation on the part of chemists to close each Wednesday at 1 p.m. from June 17 to September 23, and from December 9 to December 23.

**STREET SALE OF DISINFECTANTS.**—At a recent meeting of the East Ham Health Committee, the senior sanitary inspector reported that he had submitted to the borough analyst a sample of a fluid vended in the streets as a disinfectant, and that the analysis showed that the fluid contained only 1 per cent. of tar acids, together with neutral oils in a soap solution. The committee instructed the medical officer of health to publish a note drawing the attention of the public to the inefficiency of this fluid as a disinfectant.

**"DISCOUNT SNATCHING" AT PLYMOUTH.**—Another meeting of representatives of trade organisations was held at Plymouth on June 10, in order to consider further the question of retailers giving special discounts (*C. & D.*, March 22, p. 342). Opinions were divided as to the best means to adopt, but it was eventually agreed to supply the secretaries of the various trade organisations concerned with the names of the traders giving discounts, with a request that friendly and tactful overtures be made to them to discontinue that method of trading.

## Irish News

## Brevities

Mr. J. Martin Poots, Ph.C., 5 Castle Square, Newtownards, was organising secretary of the recent Newtownards shopping week.

At Moy (co. Tyrone) recently, Peter Ishall, R.D., was summoned for having sold crushed linseed not of the nature, substance, and quality demanded. The sample was taken in paper, and the oil oozed through. It was contended that the sample should be taken in a bottle. The case was dismissed.

The twelfth annual competition for the McMullan cup was played recently over the Bangor (co. Down) golf links. There was a good entry and ideal weather conditions prevailed. The results were as follows: Lowest net, class A, Charles O'Hagan (Newry), 84-13 = 71; class B, William Orr (Armagh), 91-23 = 68. In the final over eighteen holes, Mr. O'Hagan won, after a keen match. The special prize was won, by Mr. R. J. Crawford. Mr. John Beatty (Bangor) entertained the party to lunch and tea. After lunch a cordial vote of thanks to Mr. Beatty for his hospitality was proposed by Mr. W. J. Hardy, seconded by Mr. H. Todd, and passed unanimously. The election of the outgoing Council, with the addition of Mr. Beatty to the list of vice-presidents, was proposed by Mr. Charles Abernethy (president of the Ulster Retail Drug Trade Association) and seconded by Mr. W. Orr. On the proposition of Mr. F. Storey (president of the Pharmaceutical Society of Northern Ireland), seconded by Mr. F. D. McMullan, the Bangor Golf Club were thanked for the use of their clubhouse and links. The secretary (Mr. W. J. Rankin) was also thanked for so efficiently carrying out the arrangements for the day.

## Scottish News

## Brevities

Mr. Alexander Crawford, chemist and druggist, has been elected to represent the Shettleston ward on the Glasgow Corporation.

Several deaths from grass fever have again taken place in Morayshire. Notwithstanding elaborate precautions to stamp out the disease, it makes periodic reappearances.

At Cupar, on June 10, George Hardie, grocer, Kinglassie, was ordered to pay the expenses on a summons for having sold cream of tartar which contained 3.5 per cent. of sodium bicarbonate.

At Ayr Sheriff Court, recently, Mr. Robert Loch, unqualified assistant with Mr. A. McCrae, chemist and druggist, Girvan, was fined £1 for having sold Hinkman's Asthma Reliever (containing lobelia and stramonium) from a motor-van.—At the same court, Alexander Miller, drug-store proprietor, Girvan, was fined 30s. for a similar offence, and for not disclosing his name and address on the tin.

Relating to suggested amendments of the Poison and Pharmacy Acts a letter from the Department of Agriculture in Scotland was submitted at the half-yearly meeting of the Highland and Agricultural Society at Edinburgh. The secretary explained that the points in which they were interested were those in regard to the sale of such things as arsenical sheep dip and other compounds containing poisons. There had been forwarded a copy of the suggested draft Bill, and the Department wished to know if its provisions, in the Society's opinion, satisfied the requirements of the agricultural community. The secretary said he had sent the copy to Dr. Nasmyth and to Dr. Tocher, and both reported that the views of the Society seemed to have been given effect to, and the interests of the agricultural community properly safeguarded.



## General Medical Council

(Concluded from the C. & D., June 14, p. 721.)

An unusually lengthy case was that of Mr. Arnold Fletcher Doyle, M.B., B.S., Highbury, Old Hill, Staffordshire, who had been summoned to appear on charges of trying to attract to himself the patients of a doctor whom he was assisting in his practice. The hearing occupied the greater part of May 28 and 29, and part of May 30. The case was eventually dismissed, the facts alleged not being proved to the satisfaction of the Council.

A similar case with a similar result followed. The respondent was Mr. Hans-Raj, M.R.C.S., L.R.C.P., 40 Clifton Street, Bilston, who was alleged to have canvassed the panel patients of a medical man for whom he formerly acted as assistant.

A charge of improper behaviour towards a female patient, made against Mr. Abraham Hipwell, L.M.R.C.P. & S. Irel., 1 Homefield Place, Heavitree, Essex, was not proved to the satisfaction of the Council, and the case was dismissed.

After hearing the evidence submitted, the Council ordered the erasure of the name of Mr. Andrew Alexander Fyffe, M.R.C.S., L.R.C.P., Martham, Norfolk, who had been co-respondent in a divorce case, from the Register.

### PHARMACOPOEIA COMMITTEE

The following were appointed members of the Pharmacopœia Committee:—The President (chairman), Mr. Bone, Sir Farquhar Buzzard, Dr. Dale, Dr. Edington, Dr. Kidd, Mr. Leathes, Dr. Mackintosh, Dr. Magennis, Sir J. Moore, Sir Humphry Rolleston, Sir Holburt Waring, Sir N. Walker.

It is stated in the report of the Finance Committee that the expenditure on the preparation of the new British Pharmacopœia is estimated at £1,053 to date.

### THE METRIC SYSTEM

The report of the Examination Committee states that replies of teaching bodies to the question "Is the metric system used in teaching?" are not very encouraging to the advocates of the system. The following replies, among others, are quoted:—

*Glasgow.*—Not used in teaching, but it is taught. Students cannot be expected to learn and remember two sets of doses, or the curious, irregular doses given in the B.P.

*Manchester.*—No, except for such preparations as the organic arsenicals, and the drugs which are available in "unit per c.c." form.

*Middlesex.*—Partially. It is common knowledge that the employment of the metric system in the writing of prescriptions has not been adopted to any wide extent in this country from which it follows that the ordinary prescriptions which the student sees, or writes under direction, are not in this system. At the same time, modern chemical therapeutic agents are so frequently dispensed in metric doses, and the student of to-day receives so much practical and theoretical instruction in the application of biochemistry to medicine, that he is constantly employing the metric system during his work.

*Schools of Medicine of the Royal Colleges (Edin.).*—The metric system is preferred, but is not taught primarily because (1) the clinicians in the Hospital do not generally use it, and (2) chemists outside the School do not know it as they do the apothecaries' system.

### DISPENSING AND PRESCRIBING

An appendix to a report of the Examination Committee, asking for expressions of opinion as to the time requisite for training students in "the essentials of dispensing" and inefficient prescribing, contains the following:—

"The student must know how to dispense and prescribe with accuracy. Although the tendency now is to prescribe fewer drugs and to use less complex formulas, the utility of many potent drugs, both old and new, necessitates the maintenance of a high standard of accuracy in prescription-writing and in modern dispensing."

## Sporting Events

THE midsummer competition of the Edinburgh Pharmacy Golf Club was played on June 11 over the Craigmillar Park course. There was a good turn out in fine weather. The result was as follows:—(1) J. Bowman; (2) A. McDougall; (3) J. P. Gibb.

THE annual competition for The British Drug Houses golf trophy was held on June 12, on the Notts Golf Club links at Hollinwell. Glorious weather prevailed, and, after a keen contest between the golfing chemists of Nottingham, Sheffield and Derby, Mr. F. Terry (Nottingham) was the winner, with a net score of 77. Mr. R. L. Walker (Nottingham) was second with 78, and Mr. S. Furnival (Sheffield), third, with 79. After tea, Mr. Alan Francis, director of the B.D.H., presented the trophy to Mr. Terry.

A MATCH between the Edinburgh Chemists' Golf Club and Blandfield Golf Club (T. & H. Smith, Ltd.) was played over Ratho Park course on June 4, and resulted as follows:—

Edinburgh Chemists		Blandfield	
H. D. Robson and W. Mackintosh	0	D. S. Philp and E. W. Middleton	1
A. Stoddart and W. J. Rosie	1	A. S. Cooper and G. F. Anderson, junr.	0
J. Adam and W. S. Sperce	0	J. W. Laing and R. Y. Meikle	1
W. A. M. Hourston and J. P. Gibb	1	A. A. Philip and A. M. Burrett, sen.	0
M. Scott and W. H. Chambers	1	R. M. Wallace and W. Fawns	0
G. Cooper and A. Miller	0	T. Allan and A. Mackintosh	1

THE Edinburgh Chemists' Golf Club held an enjoyable outing in gorgeous weather on June 4 at Ratho Park, when the club trophy and captain's prizes were competed for. The results were as follows:—First, Mr. R. L. Munnoch; second, Mr. A. Miller; third, Mr. H. D. Robson; and first in second class, Mr. J. M. Foote. The next outing is at Kilspeindie on June 25, when the competition for the Pinkerton Gibson trophy will reach its concluding stage.

## Business Changes

MISS FLORA I. BAXTER, chemist and druggist, has opened a pharmacy at 36 Forth Crescent, Stirling.

MR. I. HALLAM, chemist and druggist, is closing his business at 163 High Street, Eltham, London, S.E.9, as from June 28.

HOLLANDS DISTILLERY (ESSENTIAL OILS), LTD., are removing to 26 Denman Street, London Bridge, S.E.1, as from June 23. Telephone: Hop 1720.

K. B. MAVLANKAR, essential oil and chemical merchants, are removing their office from 40 Hatton Garden, E.C.1, to the works at Trout Road, Yiewsley, as from June 23.

## Coming Events

THIS section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

### Wednesday, June 25

Scottish Chemists' Bowling Association, Albert Place Bowling Green, Stirling, at 10 a.m. Opening match of the pairs competition for the Gibbs trophy.

### Thursday, June 26

Maw Challenge Shield Competitions, Maw's Sports Ground, Hadley Wood, commencing at 2.45 p.m.



## Legal Reports

**Camphorated Oil.**—At Glasgow, on June 16, Mr. Colvin Gates, Ph.C., St. George's Road, was charged with having sold camphorated oil which contained only 18.18 per cent. of camphor, being thus deficient in camphor to the extent of 1.82 per cent. Mr. Gates pleaded "Not Guilty." and was represented by an agent. Evidence of purchase was given by an inspector, who in cross-examination declared that the bottles used for sampling had been cleaned and dried before being produced. A second inspector, who corroborated, was subjected to cross-examination regarding the condition of the bottles, which, he said, were absolutely dry when put to use, and could not possibly have contained anything to vitiate the sample. Mr. William Gates, the respondent's son and assistant, deposed that he saw one of the inspectors shaking fluid from all the bottles, and that there must have been some water left in the vessels. "I suggest to you," said the Fiscal, "that the bottles were never turned up at all, and that they were perfectly dry." The witness repeated that fluid was shaken out of all the bottles. The respondent gave evidence to the same effect about the shaking of the bottles. The Fiscal: You heard the positive evidence of the officers to the effect that the bottles were absolutely dry?—I am equally positive that they were wet. The Magistrate: There is no evidence in the analyst's report to the effect that the sample contained water. Witness: There would have been if he had looked for water. The magistrate found the charge proved, and imposed a modified penalty of £2.

The Wholesale Supplies (S. E. Schneiderman), 397,399 and 391 Portobello Road, London, W.10, request us to state that they are not connected with a firm of similar name mentioned in the Legal Reports section of our issue of June 7.

## New Companies and Company News

**P.C. means Private Company and R.O. Registered Office.**

**W. MALLARD & Co., LTD. (P.C.).**—Capital £500. Objects: To carry on the business of wholesale or retail chemists and druggists, etc. The directors are: A. E. Large and Laetitia Hignett. R.O.: 45 Mallard Street, Hackney Wick, E.9.

**BARNETSON CHEMISTS, LTD. (P.C.).**—Capital £1,000. Objects: To carry on the business of wholesale, retail and manufacturing chemists, druggists, apothecaries, pharmacists and herbalists, etc. The directors are: J. H. Shaw and A. H. Barnetson. R.O.: 98 High Road, Streatham, S.W.

**BERNARD J. HUGHES, LTD. (P.C.).**—Capital £100. Objects: To acquire the business of opticians and chemists heretofore carried on by H. V. Frost and A. J. Thorsby at 6 Priory Place, Doncaster. The directors are: H. V. Frost, Hill Croft, Town Fields, Doncaster, and A. J. Thorsby, 18 Beechfield Road, Doncaster.

**ISAAC BRAITHWAITE & SON (DRYSALTERS), LTD. (P.C.).**—Capital £20,000. Objects: To acquire the business of a drysalter and chemical manufacturer now carried on by Harold C. Wilson at Kendal, Westmorland, as "Isaac Braithwaite & Son." The directors are: H. C. Wilson, R. H. H. Ruthvens and W. Wood. Solicitors: C. G. Thomson & Wilson, Kendal.

**SANITAS TRUST, LTD.**—The net profit for the year to May 31, 1930, amounted to £65,551, which, together with £1,562 brought forward, makes £67,113. The preference dividend at the rate of 10 per cent. per annum took £49,000, and after writing off balance of preliminary expenses, £4,000, there is £14,113 to be carried

forward. In April last "Sanitas" Co., Ltd., completed the purchase of over 98 per cent. of the share capital of Oppenheimer, Son & Co., Ltd. This purchase represents an investment by the "Sanitas" Co. of approximately £195,000, which the directors believe should prove profitable.

**J. & E. ATKINSON, LTD.**—The net profit for 1929 was £28,033 (against £35,718); dividend on preferred shares absorbs £3,000; on ordinary at 7 per cent. (against 10 per cent.), £21,000; to general reserve, £3,500 (same); forward, £15,029 (against £14,496). Transfer of £21,000 has been made from reserve to cover losses incurred by subsidiaries during their development. These companies are now approaching productive stage. The general meeting is to be held on July 11 to empower the Board to alter the articles and to give effect to ordinary resolutions—that 65,000 of the unissued preference shares of £1 each be cancelled, and the share capital diminished by that amount; and that the capital be then increased to £450,000 by the creation of 65,000 £1 ordinary shares.

**BEECHAMS PILLS, LTD.**—The net profit for the year to March 31 amounted to £150,387 (against £210,449 for the previous period of fifteen months). The directors recommend a final dividend on the deferred shares of 15 per cent., making 25 per cent. for the year (against 40 per cent. for the previous period), and the 8 per cent. preferred shares are again to receive a 2 per cent. participating dividend, leaving £30,799 (against £24,874) to be carried forward. The report states that the directors have under consideration the question of the acquisition of other products and an extension of the sales organisation. The reduced spending power of the public in this country makes it more essential than ever to cultivate, if possible, a world business. With this in view the carry forward has been increased to £30,799.

## Meeting of Creditors

**Re J. J. Rackham, 131 Upper Thames Street, London, E.C.**—This debtor, formerly the managing director of a Mincing Lane company carrying on business as spice merchants, states that his liabilities chiefly relate to "differences" by speculation in produce, and under a receiving order recently made against his estate on a creditor's petition the statutory first meeting of his creditors was held on June 12 at Bankruptcy Buildings, Carey Street, W.C. A statement of affairs was submitted, showing liabilities £89,487, of which £59,890 are returned as expected to rank, and the assets are estimated to realise £22,944, or a deficiency of £36,946. It appears from statements that have been made by the debtor that upwards of forty years ago he entered the employment of the before-mentioned company and gradually worked his way up to the position of joint managing director. He held that post until two years ago, when, in consequence of the death of his co-director, he became the sole managing director. Comparatively early in the present year he resigned his post, and afterwards he also resigned his directorship, although he still holds in the company fifty shares of £65 each, fully paid. They are, however, held by the bank as part security for advances to himself and his late company. The debtor, who adds that he has also acted as a director of other companies and is now employed by a firm of spice merchants in the City, attributes his insolvency to the loss of his directorship and to inability to recover money which he alleges is due to him. The meeting passed resolutions for bankruptcy and for the appointment of a trustee of the debtor's estate. The following are creditors:—Piper & May, £8,431; Lewis & Peat, Ltd., £7,526; I. A. Rucker & Bencraft, £7,302; Henry Rooke, Sons, & Co., £4,766; Corrie, McColl & Son, Ltd., £4,722; Miller & Tindal, £4,590; A. Joensson, £3,000; J. F. Adair & Co., £2,688; Malcolm Bowley & Son, £2,135; Price, Hickman & Co., £2,029; Garrard & Sons, £1,960; R. J. Rouse & Co., Ltd., £1,060; Dipnall & Co., £837; Dalton & Young, £572; A. Tooley & Co., Ltd., £492; Beamish & O'Kelly, £483; Fall & Bond, £159.



# Pharmaceutical Society of Ireland

## Council Meeting

THE monthly meeting of the Council was held at 67 Lower Mount Street, Dublin, on June 10, Mr. F. J. Fitzpatrick (president) in the chair. The following members of the Council were also present:—Messrs. Denis J. Nugent (vice-president), P. J. Fielding, M. J. Kieran, P. A. Brady, P. D. Larkin, Joseph Gorry, John J. Roche and John Smith. Mr. J. J. R. Kerr (registrar) was in attendance. Apologies for absence were sent by Dr. M. Ryan (treasurer), Dr. J. A. Mitchell, Messrs. T. J. Doyle, David Warwick and P. Kieran.

### CHANGES OF ADDRESS

The following notified changes of address:—

Mr. P. Keaney, Ph.C., to Cowan's Hotel, Athboy, co. Meath; Mr. W. T. Hinchey, Ph.C., to The Munster Pharmacy, 14 South Main Street, Cork; Mr. T. J. McCabe, Ph.C., to 1 Fairview Corner, Clontarf, Dublin; Mr. C. Finucane, Ph.C., to Moruya, South Coast, New South Wales, Australia; and Mr. P. J. Sheehan, Ph.C., to The Medical Hall, Kilcock.

Mrs. A. M. Mullan (*née* Cullen) wrote notifying change of name on marriage and change of address to Rathdowney, Leix.

### PHARMACY BILL

The registrar read a letter acknowledging the receipt by the Minister for Local Government and Public Health of a letter of May 27 asking him to receive a deputation from the Council of the Society in reference to the Pharmacy Bill. The letter added that a further communication on the subject would be addressed to the registrar later.

### REPORTS FROM COMMITTEES

Reports from the House Committee, the Finance Committee and the Law Committee were received and adopted.

### REPORT OF DEATH

The registrar reported the death of Mr. James B. Scott, chemist and druggist, of Bandon, co. Cork.

### ADMITTED TO PRELIMINARY REGISTRATION

On the motion of Mr. LARKIN, seconded by Mr. GORRY, the following resolution was passed:—"That the certificate of the Royal College of Surgeons presented by John F. Cunningham, dated March 25, 1930, be accepted in lieu of our Preliminary examination."

### PRELIMINARY EXAMINATION REGULATIONS

On the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, a resolution was passed authorising the Legislation Subcommittee to redraft regulations for the Preliminary examination of the Society.

### NOMINATIONS FOR MEMBERSHIP

On the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, the following were nominated for membership:—

Mr. Charles L. O'Reilly, Ph.C., 63 Lower George's Street, Dun Laoghaire, co. Dublin; Mr. M. J. McCarthy, Ph.C., Church Street, Ennistymon, co. Clare; Mr. M. Dore, Ph.C., Newcastle West, co. Limerick; Mr. Thomas M. A. Dromgoole, Ph.C., c/o Dargan's Pharmacy, Cashel, co. Tipperary; Mr. Wm. S. Black, Ph.C., The Medical Hall, Monaghan; Dr. Eugene J. Fehily, Ph.C., Ballineen, co. Cork; Mr. Cecil Newton, Ph.C., Ballinrobe, co. Mayo, and Mr. Robert Dore, Ph.C., Drumcollogher, co. Limerick.

### ADDRESS TO THE PAPAL NUNCIO

The PRESIDENT referred to the fact that since the previous meeting of the Council a deputation consisting of the vice-president, the registrar, and himself had waited

on the Most Rev. Paschal Robinson, O.F.M., the Papal Nuncio, for the purpose of presenting him with an address of welcome. The deputation had been given, he said, a most cordial reception. His Excellency had astonished them by his knowledge of medicine and medical studies in mediæval times, and he had given them a present of a very nice book. THE CHEMIST AND DRUGGIST had paid them the compliment of publishing a facsimile of the front page of one of the works to which his Excellency had alluded in his reply to the address.

### MEETING OF MUNSTER CHEMISTS

Mr. FIELDING mentioned that a very successful meeting of the chemists of the three cities of Limerick, Waterford and Cork had recently been held at Limerick. The Limerick chemists had treated their guests very handsomely and had taken them to see the Shannon electricity works.

# The Manchester Testing House

By William I. Scholes

HAVING had the privilege of going through the Manchester Testing House, which, as most of us know, is the place where, by arrangement with the Ministry of Health, samples of dressings are sent for testing, it occurred to me that a short article on its nature and activities would be acceptable, especially as I have heard it stated that there ought to be some means of a check test as in the case of dispensed medicines.

The Testing House, established in 1895, was originally founded mainly to provide means by which merchants could get official tests of cotton yarns. This being a success, developments took place to such an extent that at the present day yarn testing is but a small portion of the activities of the House, which now include the chemical testing and inspection of cotton cloths, prints and other fabrics, as well as the analysis of various substances used in industry (e.g., coal, cement, ores, glycerin, tar, paper, butter and milk). Materials are received for testing and investigation not only from the Manchester district, but from all parts of the British Isles, from a number of our Government departments, the colonies and foreign countries. The expert opinion of the Testing House is frequently sought by merchants as a ready means of settling differences between buyers and sellers. In 1921, 773 such cases were submitted. These services are also utilised by many Government departments, corporations, large hospitals, steamship and railway companies for guidance in their purchases of cloth, linoleum, etc.

For many years prior to testing N.H.I. dressings, large quantities of surgical dressings purchased by the Dominions and foreign governments were tested and inspected at the works of the manufacturers before shipment. From the above it may be concluded that we can have the fullest confidence in the results from the Manchester Testing House.

From all the Insurance Committees in England, Scotland and Wales samples are being regularly received. In 1929 the number was 1,107, and in addition to these an increasing number of tests is being made for wholesalers and manufacturers in order to keep up with the Codex specifications; therefore it behoves all dispensers to see that they purchase their supplies from reliable sources only. Especially so is this the case in plaster of Paris bandages. It being necessary that all dressings should be examined, some tests were made on these, which in most cases were quite wrong; one we saw was ordinary W.O.W. bandage in a container and the plaster all loose round about it (labelled "B.P.C."). According to the B.P.C. specification, the plaster clings to the bandage of check crinoline by means of an adhesive which does not affect the plaster; and although the keeping qualities are very considerable, it is best to buy only for immediate requirements.



# Siam Government Laboratory

THE fourth report of the Government Laboratory of Siam, prepared by Mr. A. Marcan, F.I.C., states that the position of Siam with regard to *Hydnocarpus* (*chaulmoogra*) oils is a favourable one, and increase in use of the oil is ascribed to its improved quality and cheapness. A count of *Hydnocarpus anthelmintica* on the banks of the Tachin and Pasak rivers has led to the estimate that 33,000 litres of oil could be produced annually. In addition there are resources of *H. ilicifolia*. A private firm in Bangkok during the period under review has exported 936 kg. of medicinal oil. A certificate of purity for consignments of oil exported can be obtained from the Laboratory. There is a considerable export trade with China in *Hydnocarpus* seeds ("lukrabao"), and as far as can be ascertained they are used for the treatment of skin diseases. Lower-grade oil has been investigated as to its industrial uses in view of the contact insecticidal action of the fatty acids and their derivatives, but results so far have not been encouraging. It is a widespread thought that *Hydnocarpus* oil is an expensive medicinal oil and that industrial application is out of the question, but the report states that an "off-grade oil can be produced at Baht 29.00 per picul, or f.o.b. Bangkok in 40-gallon steel drums at Baht 31.00 per picul." The price of the seeds varies with the demand from China, and it is reported that two tons of oil have been sold for soap stock at a price equivalent to tallow. Data regarding the oil and the mixed ethyl esters produced are given:—

	Oil		Esters
	1st grade	2nd grade	
Acid value as oleic acid, per cent. ...	1.2-3.5	4.5-4.8	0.1-0.4
Specific gravity, 30°/4° C. ...	0.943-0.944	0.943-0.950	0.893-0.898
Saponification value	199.5-204.0	200.8-204.2	189.8-194.0
Iodine value (Wijs)	87.7-88.7	85.8-89.4	80.5-86.2
Specific rotation 30°	48.7-49.6	48.8-49.2	42.5-48.6
Refractive index, 30° C.	1.4740-1.4749	1.4740-1.4743	1.4535-1.4536

The first-grade oil is issued for injection and the second-grade for the preparation of esters. Increase in the "acid value as oleic acid per cent." has been noted in the oil on keeping: (1) in one year from 3.7 to 4.4, exposed to light in a glass bottle; (2) in eight months from 4.5 to 5.2; (3) in sixteen months from 3.1 to 3.8, stored in a closed tin. The oil of *Hydnocarpus ilicifolia*, King, which occurs extensively in Siam, was also examined. Difficulty was experienced in obtaining supplies owing to the seeds being eaten by bears while on the trees. The dry kernels yield 36.1 per cent. fat by ether extraction. The two oils show similarity, and clinical tests on the esters and sodium salts of the fatty acids are being carried out. Two samples of cold-pressed oil and two preparations of esters examined showed:—

	Oil		Esters	
	(1)	(2)	(1)	(2)
Acid value as oleic acid, per cent. ...	21.0	0.6	0.1	0.6
Specific gravity, 30°/4° C. ...	0.944	0.947	0.903	0.904
Saponification value	203.6	213.1	196.5	198.1
Iodine value, (Wijs)	89.7	89.7	80.6	81.1
Specific rotation [α] 30° D	52.7	51.2	42.0	41.5
Refractive index, 30° C. ...	1.4739	1.4763	1.4560	1.4517
Melting point	25.8-32.6	23.0-28.2	—	—

Other products examined included curcas oil, soap oil ("naman sabu")—the expressed oil of *Jatropha curcas*,

physic nut, the yield being 26.2 per cent. by hot pressing from undecorticated seeds. Extracted with chloroform the yield was 31.2 per cent. Two samples, chloroform extracted (a), and expressed (b), showed the following character:—

	A	B
Specific gravity, 15.5° ...	0.923	0.924
Saponification value	202.9	192.6
Iodine value—Wijs	98.2	101.1
Refractive index, 40° C. ...	1.4623	1.4640
Acid value as oleic acid, per cent.	12.4	7.5

*Jatropha curcas* is commonly planted for hedges in Siam but is wild in many parts and is known in Northern Siam under the name "mahong hua"; in Eastern Siam, "mak yao"; in the Peninsula, "hong tet." Oil of turpentine prepared from an oleo-resin collected in North Siam from *Pinus merkusii* had the following properties: Specific gravity at 15.5°, 0.861; distillation test, initial b.p., 153° C., 97 per cent. over at 170° C.; refractive index, 20° C., 1.467; optical rotation, D-40.4°; acid value, 0.1 mgm. KOH per gm.; residue, 7 per cent.; colour, pale yellow. Supplies of the resin are considerable and the product is practically equivalent to turpentine. The leaves of a *Cinnamon* sp. ("krawan") from Kanburi province were found to be aromatic and have been used in Bangkok as a flavouring. Ten kilos of dried leaves on distillation gave a yield of 1.2 per cent. of crude camphor and the yield of essential oil after removing portion of the camphor by cooling was 1.42 per cent. by weight. Of the total yield of camphor, 0.66 per cent. was obtained direct in the distillation, 0.37 per cent. on cooling the essential oil, and 0.17 per cent. on distilling the essential oil. The resublimed camphor had a melting point of 172° C. and a rotation of 44.2° for a 20 per cent. solution in alcohol at 30° C. The essential oil (after removal of camphor by cooling) had a specific gravity at 18° C. of 0.933, and a specific rotation of 23.9° at 25° C. The oil fractionally distilled gave three fractions: 160°-195° C., 47 per cent. colourless oil, ester value, zero; 195°-220° C., 22 per cent., containing 50 per cent. crude camphor; 220°-260° C., 7 per cent. dark green oil of a pleasant odour.

## OPIMUM

In the Opium Department the number of samples was 532 against 29 in the last period. This was due to two causes: first, the inauguration of the system whereby dross was withdrawn from sale in the opium shops and purchased by the Government, and second, the partial replacement of Indian raw opium by the Persian product. Reform entailed in dross control necessitated the control of the purity of the dross purchased, by the determination of its morphine content in order to avoid adulteration in resmoking. Preliminary work in dross control implied adopting standards for yield of dross from prepared opium and morphine content. In the latter determination the differences in pipes, smokers and composition of prepared opium must be taken into account. Specially selected dross was analysed, many samples being smoked under the supervision of a committee to investigate the yield of dross. The limits of morphine (anhydrous) found were as follows: First quality dross ("yi chen"), flat pipe ("paa chui"), 6.6-8.0 per cent.; pointed pipe ("chiem chui"), 6.1-7.7 per cent.; pointed pipe (Siamese smokers), 4.4-5.3 per cent. The theoretical yield of dross from prepared opium was estimated by the determination of ash in prepared opium and in the dross produced from it. The figures obtained varied from 61.9 per cent. to 72.9 per cent. of dross from opium, but it is not suggested that these yields can be obtained in actual practice. The moisture in dross in eighteen samples purchased from the shops varied from 6.6 per cent. to 7.8 per cent., and in ten samples smoked under supervision it varied from 5.5 per cent. to 7.2 per cent.



## NATIVE POISONS

A poisonous fish, "pla pak pao," identified as a species of *Tetraodon* (globe fish), is stated to be a new-comer to the list of poisons. Another case is mentioned where the gall bladder of the "pla pak pao," together with the juice from *Excavaria agallocha* ("yang ta tum") and *Croton Tiglium* seed ("luk salawt") were mixed with drinking water. It is reported that in Kelantan the gall of *Tetraodon* sp. is in use as a poison and is frequently mixed with upas sap. Seeds submitted as causing the death of a child were identified as *Pachyrhizus erosus* ("malet man keo"). The toxic properties of the ripe seeds appear to be well known and the seeds are avoided by adults. The toxicologist might well ponder as to how far the criminal is ahead, and a glance at J. D. Gimlette's "Malay Charms and Poisons" (C. & D., 1929, II, 311) will show that many poisons are in use which find no place in systematic toxicology. In the East the criminal has all the resources of the jungle at his disposal. Scientific institutions in the East are occupied with more pressing problems than the conviction of a poisoner of initiative, but, states Mr. Marcan, the situation is worthy of consideration by those with time and facilities at their disposal for toxicological research.

1 picul = 133½ lb. Baht (Tical) = 22d.

## Indian Opium Conference

THE Indian Opium Conference was opened by the Viceroy at Simla on May 5. The Conference was called to suggest means whereby the high consumption of opium in certain areas (black spots) may be reduced, and to consider the problem of illicit traffic, not only in opium but in more pernicious drugs, and to assist the Government of India with advice as to how to deal with these evils. The Conference consisted of representatives of Local Governments and of principal administrations.

### REDUCTION IN CONSUMPTION

In his opening speech the Viceroy rightly claimed that since 1924 much has been done to render the Indian Government's policy and practice in regard to opium, immune to reasonable criticism. The total consumption of the drug in British India in the ten years preceding the year 1928-29 was reduced from 459,000 seers to 277,000 seers, and the average consumption per 10,000 of the population from 18.83 to 11.20 seers per annum. Early in 1926 the Government of India announced their intention to extinguish entirely within ten years, by equal, progressive annual stages, their exports to the Far East from which they derived a large revenue and the last exports will take place in 1935.

A peculiar and difficult problem is presented by the cultivation of poppy and the accumulated stocks of old opium in the Malwa States, and the Government of India are actively endeavouring to find a satisfactory solution with the co-operation of the States concerned. Another such subject is opium smoking. This is a live problem only in a few provinces, and there effective measures, legislative and administrative, have been taken to prevent the spread of the habit and to ensure its ultimate eradication.

### ELIMINATION OF "BLACK SPOTS"

Though the average consumption of opium in India cannot be said to be high, there are certain areas known as "black spots." It is now proposed to eliminate these spots, and the Secretary of State for India suggested the desirability of inviting local governments to set up local committees for the purpose of investigating the causes of the relatively high consumption in these areas and of suggesting the means of reducing it to a more normal level.

The results of these inquiries are now in hand, and the conference met to discuss, to digest and to collate,

and thereafter to deduce general conclusions on the basis of which action may be taken. There is also illicit traffic in cocaine and charas and other hemp drugs. Opinion is unanimous that some sort of a central organisation should be set up to co-ordinate the measures for its suppression. Another subject for discussion was the desirability of supplying excise opium, in the form of wrapped and sealed tablets of uniform weight, approximating to a reasonable average daily dose for a moderate consumer. This last was suggested by the Taxation Inquiry Committee. After prolonged and careful investigation and trial in England and at Ghazipur, where experimental cutting and wrapping machinery has been installed, it has been established that it is possible to make up opium in this form. But there is considerable difference of opinion on this question. After stating these questions which the Conference was to consider, the Viceroy wound up with an appeal as follows:—"I would urge you earnestly, therefore, to grapple with this problem, difficult and elusive as it is, in the determination that through your efforts a lasting benefit shall, in due course, have been conferred upon the human race and that the good name of India shall shine undiminished before the world."

## For New Business

By a Business Consultant

### II—Some New Services

IN the previous article, under the same title, there were made suggestions as to the obtaining of greater publicity locally. In addition to the type of organisation mentioned, there are the outdoor clubs—football, cricket, golf, tennis, motoring, cycling and bowling. Devotees of these pastimes all have their club-houses, where soap, towels and nail-brushes are in general use. The committee would undoubtedly welcome the gift of a few nail-brushes or hair-brushes, with the pharmacist's name and address on each article. The gift of a dozen tablets of soap at Christmas would be appreciated by members, and the gift would be acknowledged by the committee—in each case bringing the pharmacist's name before influential people. Then there is a good business waiting to be done in first-aid boxes for motorists. Not one car in a thousand contains anything which would be useful in the event of an accident to the occupants, or in the event of the driver being first on the scene after an accident in open country. The manufacturers of first-aid outfits would probably supply suitable leaflets, with the pharmacist's name and address, describing two or three special outfits designed for carrying in the car and kept in stock by the pharmacist. These leaflets could be delivered to customers known to own cars, enclosed in packages being sent to those likely to have friends with cars, and sent with invoices, statements and correspondence to customers. Then there are births (as announced in the local papers) to be followed up, either by correspondence or by arranging that a messenger will call. This is a service which can be suggested by letter or telephone: in some households it would be a great advantage if those in charge of an invalid knew that a messenger would call at, say, 10 a.m., and that any goods ordered would be delivered by noon. It should not be difficult to organise a round of calls for a boy every morning. Children and invalids are often put on some proprietary food. They use one, two or even five tins or packets every week, but sometimes the supply runs out through pressure of other duties or sheer forgetfulness. In such cases the pharmacist offering to send supplies once every three days, or once each week, treating the matter as a standing order and relieving those in charge of the invalid of the responsibility of personally purchasing supplies, would speedily add to his turnover. No service can be successful unless it is efficient: therefore, before instituting anything of this kind, the pharmacist must make certain of efficiency in his staff.



# The Progress of Pharmacy

## AND ALLIED SCIENCES

### PHARMACY

**Syrupus Bromoformii Co.**—The "Ergänzungsbuch zum Deutschen Arzneibuch" ("D.A.V."), fifth edition, gives the following formula for a compound syrup of bromoform, the composition of which approximates that of the preparation included under the same title in the new edition of the Italian Pharmacopœia:—

Bromoform	...	1	gm.
Codeine hydrochloride	...	0.35	gm.
Alcohol (90 per cent.)	...	50	gm.
Tincture of aconite	...	10	gm.
Bitter almond water	...	10	gm.
Glycerin	...	50	gm.
Syrup of balsam of tolu	...	100	gm.
Syrup of ipecacuanha	...	125	gm.
Orange-flower water	...	3	gm.
Syrup of cherry	...	125	gm.
Syrup to	...	1,000	gm.

Dissolve the bromoform in the alcohol and the codeine hydrochloride in the bitter almond water, then add the other ingredients.

**Italian Formulas.**—The following preparations figure in the fifth edition of the Italian Pharmacopœia:—

#### ADEPS LANE CUM AQUA.—HYDRATED LANOLIN:—

Wool fat	...	30	gm.
Distilled water	...	10	gm.
Liquid paraffin	...	6	gm.

#### ADRENALIN SOLUTION:—

Adrenalin	...	1	gm.
1/1 solution of hydrochloric acid	...	10	c.c.
Physiological salt solution containing 0.5 per cent. of chloretone	...	990	c.c.

Fill in small glass-stoppered bottles of amber-coloured glass and slowly pass a current of carbon dioxide through the solution, then sterilise in a current of steam for one hour at 100° C.

#### LIQUOR BROMOFORMII.—SOLUTION OF BROMOFORM:—

Bromoform	...	5	gm.
Glycerin	...	15	gm.
Alcohol (90 per cent.)	...	30	gm.

#### LIQUOR FORMALDEHYDI SAPONATUS.—SOLUTION OF FORMALDEHYDE WITH SOAP:—

Castor oil	...	250	gm.
Sodium hydroxide (90 per cent.)	...	44	gm.
Solution of formaldehyde (40 per cent.)	...	1,000	gm.
Alcohol (95 per cent.)	...	100	gm.
Oil of thyme	...	1	gm.
Oil of lavender	...	1.5	gm.
Distilled water to	...	5,000	gm.

Dissolve the sodium hydroxide in 85 gm. of distilled water, add the castor oil, and saponify with the aid of heat and, while warm, dilute with water to produce 3,900 gm. of solution. Allow to cool; add the solution of formaldehyde and the essential oils, previously mixed with the alcohol; set aside for twenty-four hours and decant.

#### LIQUOR NATRII HYPOCHLOROSI.—SOLUTION OF SODIUM HYPOCHLORITE:—

Chlorinated lime (23 per cent. of active chlorine)	...	20	gm.
Sodium phosphate	...	54	gm.
Sodium chloride	...	20	gm.

Triturate the chlorinated lime with 20 gm. of distilled water, add 50 gm. of water, mix, transfer the supernatant liquid to a flask, repeating this operation until 500 c.c. of liquid has been collected. Dissolve the sodium phosphate and sodium chloride in 400 c.c. of lukewarm water. When cool, mix this solution with the solution of chlorinated lime; allow it to stand and then filter, after establishing that no precipitate forms on the addition of sodium phosphate to the filtrate. Wash the precipitate on the filter with sufficient water to produce 1,000 c.c. of solution, which is required to contain 0.5 gm. of active chlorine in 100 c.c.

#### MIXTURE ANTIMALARICA.—BACCELLI'S ANTIMALARIAL MIXTURE:—

Quinine sulphate	...	3	gm.
Iron and potassium tartrate	...	7.5	gm.
Distilled water	...	300	gm.
Solution of potassium arsenite (1 per cent.)	...	25	drops

#### SUPPOSITORIA GLYCERINI.—GLYCERIN SUPPOSITORIES:—

Glycerin	...	85	gm.
Sodium stearate	...	15	gm.

Dissolve the sodium stearate in the glycerin by the aid of a gentle heat and pour into moulds previously lubricated with liquid paraffin.

#### SYRUPUS BROMOFORMII Co.—COMPOUND SYRUP OF BROMOFORM:—

Solution of bromoform	...	10	gm.
Codeine	...	0.5	gm.
Alcohol (90 per cent.)	...	35	gm.
Tincture of aconite	...	2	gm.
Bitter almond water	...	10	gm.
Syrup of balsam of tolu	...	940	gm.

Dissolve the codeine in the alcohol, add the solution of bromoform and mix with the other ingredients.

#### SYRUPUS CALCII LACTOPHOSPHORICI.—SYRUP OF CALCIUM LACTOPHOSPHATE:—

Calcium carbonate	...	10	gm.
Lactic acid	...	24	gm.
Phosphoric acid (50 per cent.)	...	10	gm.
Syrup	...	800	gm.
Distilled water	...	a sufficiency	

Mix the calcium carbonate with the lactic acid and 130 gm. of distilled water and heat until carbon dioxide is no longer evolved. Add the phosphoric acid, filter and pass through the filter sufficient distilled water to produce 200 gm. of liquid, which is then mixed with the syrup.

#### UNGUENTUM ZINCI.—ZINC OXIDE OINTMENT:—

Zinc oxide	...	10	gm.
Soft paraffin	...	80	gm.
Liquid paraffin	...	10	gm.

**Tinctura Opii Deodorata.**—The third edition of the Venezuelan Pharmacopœia gives the following directions for the preparation of tincture of deodorised opium:—

Opium, in powder	...	10	gm.
Ether	...	20	gm.
Alcohol	...	20	gm.
Distilled water	...	a sufficiency	

Triturate the opium with 40 gm. of distilled water, added in small portions, then macerate for twelve hours. Press, and repeat this operation twice, using each time



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40 gm. of distilled water. Mix the expressed liquids and evaporate to 10 gm. When cold, transfer to a flask and shake with the ether, set aside to allow separation of the two liquids, then decant the ethereal layer and heat the aqueous liquid to evaporate the ether. Mix the residue with 50 gm. of distilled water, filter, complete the weight of the filtrate to 80 gm. by the addition of distilled water and then add the alcohol.

### PHARMACEUTICAL CHEMISTRY

**Oxidation of Paraldehyde on Keeping.**—R. Hutchison reports a case ("British Medical Journal," 3614, 718) in which the rectal injection of paraldehyde was followed by great pain and local sloughing of the mucous membrane. On inquiry it was found that the paraldehyde used had been largely converted into glacial acetic acid. Once a trace of this has been formed it acts as a catalyst, which may finally lead to the conversion of 75 per cent. of the paraldehyde into acid. If the paraldehyde is kept in an airtight bottle there is no risk of such conversion.

**Stability of Salts of Ergotamine and Ergotamine.**—F. Wokes and G. K. Elphick ("Quarterly Journal of Pharmacy and Pharmacology," III, 1, 59) have examined the stability of ergotamine and ergotamine to determine the amount of activity lost in a year or less. The alkaloids were examined in the dry condition as well as in aqueous solution. It was found that ergotamine phosphate, even when stored *in vacuo* in a desiccator over phosphorus pentoxide, was found to lose its physiological activity at a rate of about 10 per cent. per annum. When stored in air-filled containers, with no precautions to avoid oxidation, the rate of deterioration appeared to be more rapid. Ergotamine ethane-sulphonate, when stored in air-filled corked tubes, was found to be more stable, the rate of deterioration, if any, being not more than 5 per cent. per annum. Ergotamine phosphate in aqueous solution is much less stable than in the dry condition. Commercial samples of ampoules containing aqueous solutions of ergotamine phosphate or ergotamine tartrate were found to undergo the same deterioration, half the activity being lost in six months' storage in ampoules containing initially about 0.05 or 0.1 per cent. Storage at 37° C. always caused the rate of deterioration to be several times more rapid than in the same preparation stored in the ice chest.

### AGRICULTURAL CHEMISTRY

**Wetters and Spreaders for Agri-horticultural Spraying.**—R. M. Woodman ("Chemistry and Industry," 49, 7, 931) describes experiments on the relative efficiency of various substances for use as wetters and spreaders in insecticidal and fungicidal sprays. A "wetter" stays as a lens where it is sprayed, but a "spreader" causes the spraying fluid to extend over portions of the plant surface not directly hit by the spray. The two terms are thus not quite synonymous, though a spreader necessarily wets before spreading. A fungicide should wet and spread over the felt-like mass of mycelial threads to be destroyed. A poison against biting insects (caterpillars) should wet and spread to provide a toxic film over the plant surface on drying. A contact insecticide to destroy sucking insects (such as aphides) must make a direct hit and spread over the body surface of the insect. A winter wash should spread over the tree surface to destroy eggs and hiding pests. Weed-killers should wet and spread over weeds to a maximum extent. Soaps are the most commonly used wetters and spreaders. Potassium oleate, sodium resinate, "Permal" and the mixed salts from bile were far the best wetters and spreaders among the substances tested. The dissatisfaction concerning caseinates is apparently due to leaving patches on drying after spraying. Agar-agar, gelatin, gum arabic, gum tragacanth, egg powder, egg albumen, starch and dextrin appear to be of little value as wetters and spreaders. It is mentioned that barium caseinate will probably fulfil the dual purpose of an internal poison insecticide and a spreader or emulsifier.

### BIOLOGICAL CHEMISTRY

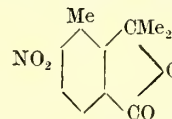
**Leaf Size and Vitamin-A Content.**—L. McLaughlin and E. S. Haber ("Journal of Biological Chemistry," 84, 249) determined the vitamin-A activity of spinach leaves of various sizes by growth experiments on rats. It was found that the potency increased directly with surface area of leaf and diminished according to thickness of lamina.

**Carotene as Precursor of Vitamin A.**—T. Moore, at the annual meeting of the Biochemical Society, on March 14, confirmed the previous preliminary announcement of the conversion of carotene to vitamin A *in vivo*. Since a careful colorimetric and spectroscopic examination of the carotene fed to the test animal failed to reveal appreciable amounts of vitamin A, the positive results with the oils from livers of carotene-fed rats lead to the conclusion that carotene behaves *in vivo* as a precursor of vitamin A. It is suggested that the rôle of carotene would be better described as that of a "vitaminogen."

**Antirachitic Value of Cod-Liver Oil and Viosterol Compared.**—A. G. De Sanctis and J. D. Craig record the results ("Journal of the American Medical Association," 94, 17, 1285) of the experimental treatment of 100 children with cod-liver oil and 123 with viosterol (irradiated ergosterol prepared to the U.S.A. specification). Cod-liver oil, given in a dosage of three teaspoonfuls daily, prevented rickets in 97 per cent. of cases. Viosterol 100 D, given in a dosage of ten drops daily, prevented rickets in 77 per cent. of cases. Viosterol given in the dosage recommended at the present time by its various manufacturers is less effective in the prevention of rickets than cod-liver oil. In this series of cases the infants on viosterol received about twice as many rat units of vitamin D as those on cod-liver oil. One of two conclusions may be drawn: either the present recommended prophylactic dose of viosterol is too small to prevent rickets or rickets is not due to a deficiency of vitamin D alone. The authors are inclined to believe that the second of these possibilities is true.

### PURE CHEMISTRY AND PHYSICS

**Oxycannabin.**—R. S. Cahu ("Journal of the Chemical Society," May 1930, 986) is investigating the resin of *Cannabis indica*. Part I, the present communication, concerns oxycannabin only. This substance is an oxidation product obtained by the action of concentrated nitric acid upon higher boiling portions of the resin. Data are given showing that the formula of nitrocanabinolactone or oxycannabin must be represented as follows:—



**Digoxin** is a new crystalline digitalis glucoside isolated in small amount from the leaves of *Digitalis lanata* by Sydney Smith ("Journal of the Chemical Society," March 1930, 508). Digoxin resembles gitoxin in being sparingly soluble in chloroform, but is more soluble in hot 80-per-cent. alcohol than the latter glucoside. Digoxin gives a Keller reaction, which readily distinguishes it from gitoxin; the coloration on dissolving in acetic acid containing a trace of ferric chloride and treating with sulphuric acid being an olive brown completely free from red. The empirical formula of digoxin corresponds to  $C_{41}H_{64}O_{14}$ , and its hydrolytic products agree with disruption into digoxigenin ( $C_{23}H_{34}O_5$ ) and digitoxose (with a yield of three molecules of sugar to one of genin). Digoxin, when heated, slowly melts at 260° C., and decomposes about 265° C. The activity of digoxin is about one-fourth that of ouabain (1 mgm. digoxin being equivalent to 0.28 mgm. standard ouabain by Trevan and Boock frog method).

**New Type of Red Perchromate.**—J. A. Reynolds and J. H. Reedy ("Journal of the American Chemical







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when obtained from dry material. A detailed examination of the oil was not made.

**Caucasian Geranium Oil.**—According to B. N. Rutowski and N. N. Makarowa-Zemljanskaja ("Transactions of the Chemico-Pharmaceutical Institute, Moscow," VII, No. 22, 1930) a few test plants of *Pelargonium roseum*, of a probably not absolutely pure strain, were planted in 1925 at the Abchsicher Experimental Station. A sample of the oil contained:—Terpene (about 1.5 per cent.), linalol (about 7.4 per cent.), citronellol (about 54.2 per cent.), geraniol (about 1.2 per cent.), menthone (about 4.6 per cent.), about 1.4 per cent. of a substance m.p. 125°–148°, sesquiterpene alcohol, tiglic, butyric, and acetic acids, and an acid which boiled at 180 at 225°.

**Caucasian Lemongrass Oil.**—B. N. Rutowski and I. W. Winogradowa ("Transactions of the Chemico-Pharmaceutical Institute, Moscow," VII, 22, 1930) state that acclimatisation tests with *Andropogon citratus* were made in 1906. The plants were left out in the open throughout the winter, and some were lost by frost. In 1916 and 1917 distillation tests were made giving a yield in 1916 from 0.19 to 0.23 per cent., and in 1917 from 0.20 to 0.35 per cent. New tests were made in 1925–1926. The presence of  $\alpha$ -citral and  $\beta$ -citral (about 55 per cent.), geraniol (about 3 per cent.), nerol (about 1.5 per cent.), myrcene (about 7.5 per cent.), and decylaldehyde (about 2 per cent.) was confirmed. No methylheptenone, limonene or citronellal was identified in the sample examined. This article is illustrated by a number of interesting photographs.

**White Fir Seed Oil.**—According to V. Massera ("Rivista Italiana delle Essenze e Profumi," May 1930) the seeds of *Abies alba* furnish the oil known as essence of "templino," in Switzerland. Oil distilled from seeds derived from the Italian Alps was obtained to the extent of 1.8 per cent., having the following characters:—Specific gravity at 15°, 0.8568; optical rotation at 20°,  $-82^{\circ}30'$ ; refractive index at 20°, 1.4742; acid value, 0.43; ester value, 5.1; esters as bornyl acetate, 1.79 per cent.; ester value of acetylated oil, 8.34; total alcohols as borneol, 2.31 per cent. On fractional distillation the following fractions were obtained:—From 166–170°=6 per cent.; 170–180°=74 per cent. (mostly 174–176°); 180–200°=10 per cent.; 200–230°=3 per cent.; 230–275°=3 per cent. The portion distilling between 166°–170° was redistilled at 5 mm. pressure, and then had the following characters:—Specific gravity, 0.8512; optical rotation,  $-70^{\circ}24'$ ; refractive index, 1.4708. It consisted in the main of *lavo*- $\alpha$ -pinene. The fraction boiling from 170–180° had the following characters:—Specific gravity, 0.8503; optical rotation,  $-88^{\circ}40'$ ; refractive index, 1.4728. This consisted mainly of *lavo*-limonene. Borneol was identified, and in the high boiling fractions cadenine was found.

**New Essential Oil Ketones.**—Gibson, Penfold and Simonsen ("Journal of the Chemical Society," 1930, 1184) have examined the portion of the oil of *Bachousia angustifolia*, soluble in alkali, which was found by Penfold, during a previous investigation, to yield crystalline derivatives with ammonia and copper carbonate. The formula,  $C_{10}H_{14}O_3$ , was provisionally suggested for the substance, although it was pointed out that evidence of homogeneity was lacking. Two individual ammonia derivatives were obtained, melting at 135–137° and 153° respectively. A detailed examination has now been carried out, and it has been found that the substance is homogeneous, and is either one or the other of two closely related ketones, to which the names angustione and dehydroangustione have been assigned. The constitution of the former has been established with certainty, and one is suggested for the latter which is probably correct. Angustione appears to be present in some cases, and dehydroangustione in others, the conditions upon which this

fact depends, not being yet decided. Angustione, which appears to be present also in the essential oil of *Boronia thujona*, has now been found to have the formula  $C_{11}H_{16}O_3$ . The most characteristic derivative which has been prepared is amino-angustione,  $C_{11}H_{17}O_2N$ , prepared by the action of ammonia on the ketone. It forms crystals melting at 130–131°. A crystalline copper derivative can also be prepared,  $C_{22}H_{30}O_6$  Cu, melting at 192–193°. Angustione has the following characters:—Specific gravity at 20°, 1.089; boiling point, 129° at 15 mm.; refractive index, 1.5137; specific rotation,  $-5^{\circ}56'$ ; formula,  $C_{11}H_{16}O_3$ . It is a colourless viscid liquid, with a faint and somewhat unpleasant odour. It does not yield a crystalline bromide. It yields a series of derivatives in which  $H_2O$  appears to have been eliminated. Anhydro-angustione semicarbazone melts at 145°, and the oxime at 41–43°. Dehydroangustione, after purification by means of its copper derivative, had the following characters:—Specific gravity at 20°, 1.103; refractive index, 1.5255; boiling point at 11 mm., 126–127°; specific rotation,  $-2.03^{\circ}$ ; and formula,  $C_{11}H_{14}O_3$ .

### FIXED OILS AND FATS

**Oil from Tobacco Seeds.**—M. P. Piatuitzki ("U.S.S.R. State Institute Tobacco Investigation" Bulletin, 1929, 61), records that extraction of tobacco seeds with light petroleum gives an oil with the following constituents: About 60 per cent. linoleic, 21.7 per cent. oleic, 9.6 per cent. palmitic acids, and 10 per cent. glycerol. No alkaloid nor any linolenic acid was found.

**Thiocyanates of Unsaturated Fatty Acids.**—W. Kimura ("Journal of the Society of Chemical Industry of Japan," 1930, 33, 58B) has prepared the pure thiocyanogen additive products of oleic, elaidic and brassidic acids by means of the action of free thiocyanogen on carbon tetrachloride solutions of the acids. They are soluble in absolute alcohol, ether, carbon tetrachloride and acetic acid, but not in water. Recrystallisation of elaidic and brassidic thiocyanates from absolute alcohol results in fine needle shaped crystals with m.p. 79–79.5° and 57.5–58° respectively. Oleic thiocyanate is a pale yellow oil.

**Fatty Acids of Nutmeg Butter.**—G. Collin and T. P. Hilditch ("Chemistry and Industry," 49, 11, 141T) give the following compositions for the mixed fatty acids of expressed oil of nutmeg (from seeds of *Myristica officinalis*) and of the fatty acids of the fat of *Myristica malabarica*:—

	Fat of <i>M. officinalis</i> (Per cent. of total fatty acids)	Fat of <i>M. malabarica</i> (Per cent. of total fatty acids)
Lauric acid ...	1.2	—
Myristic acid ...	61.6	22.3
Palmitic acid ...	8.2	13.3
Other saturated acids ...	—	1.3
Oleic acid ...	8.4	25.1
Linoleic acid ...	1.1	0.6
Resins ...	19.5	43.1

"Solid" acids constituted 71 per cent. of the mixed fatty acids from expressed nutmeg oil and 36.3 per cent. of the fatty acids from the fat of seeds of *M. malabarica*. Refined nutmeg butter contained 58.6 per cent. of fully saturated glycerides with an "association ratio" of 1.6 molecule of saturated acid per molecule of oleic acid. *M. malabarica* fat contained only 10.4 per cent. of fully saturated glycerides.

**Component Glycerides of Borneo (Illipe) Tallow.**—T. P. Hilditch and J. Priestman ("Chemistry and Industry," 49, 16, 197T) have investigated the composition of Borneo (illipe) tallow or *Shorea* nut-fat, a hard, pale green, non-greasy fat obtained from trees of the genus *Shorea* (mainly *S. stenoptera*). *Shorea* nuts are frequently termed illipe nuts, and the use of the term illipe tallow is apt to confuse the fat with the softer illipe butter from *Bassia longifolia*. The combination of brittleness and low melting point



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suggests that Borneo tallow has similar component glycerides to cacao butter, and the following comparisons of results bear this out:—

	Limiting values	Borneo tallow Possible composition	Cacao butter Possible composition
Saturated glycerides (palmito-stearins) ..	4.5	4.5	2.5
Mono-oleo disaturated glycerides (oleo-palmito-stearin) ..	78 to 87	85	77
Dioleo-mono saturated glycerides ..	17.5 to 0	6.5	16
Triolein ..	8.5 to 0	4	4

The results indicate clearly features of glyceride structure common to both fats, which render them specially suitable for use as confectionery fats.

### MEDICINE

**Xylene for Pediculosis.**—C. Ferguson discusses ("Journal of the American Medical Association," 94, 15, 1135) the measures usually taken to eradicate pediculi. An effective and cheap preparation is an ointment containing 25 per cent. of xylene in a base of hydrous wool fat and soft paraffin, equal parts. Patients are instructed to apply the ointment twice daily for at least five days.

**Idiosyncrasy to Quinine and other Cinchona Alkaloids.**—A study of idiosyncrasy to quinine, cinchonidine, hydroquinine, hydrocinchonidine, cupreine, hydrocupreine, ethylquitenine and ethylhydrocupreine is given in "The Journal of the American Medical Association" (94, 10, 704) by W. T. Dawson and F. A. Garbade. Idiosyncrasy to quinine may extend to these levo-rotatory related alkaloids, but not necessarily to their dextro-rotatory isomers, such as quinidine, optochin and cinchonine. This is of importance in connection with the treatment of malaria, since it may be possible in cases of quinine idiosyncrasy to substitute quinidine or cinchonine.

**Stramonium in Chronic Encephalitic Parkinsonism.**—C. Worster-Drought and T. R. Hill have treated numerous cases of chronic encephalitic parkinsonism ("Lancet," 5571, 1225) with various preparations of stramonium. Results as satisfactory as from hypodermic hyoscine injection are obtained by the administration of extractum stramonii, U.S.P., by the mouth in doses of 0.25 gm. to 1 gm. or more three times a day, the average dose being 0.75 gm. Similar results are obtainable with doses containing equivalent quantities of alkaloid of extractum stramonii exsiccatum, B.P.C., dried stramonium leaves, and tinctura stramonii, B.P. The disadvantage of dried stramonium leaves is the excessive bulk of adequate doses, and of tinctura stramonii that it is twice as expensive as the stramonium extract.

**Tuberculin in Asthma.**—J. Maxwell reports ("British Medical Journal," 3618, 854) the results obtained in treating thirty-six selected hospital patients with tuberculin for asthma. The material for injection consists of decimal dilutions of old tuberculin contained in rubber-capped bottles, the dilutions ranging from 1 in 1,000,000 to 1 in 100. The size of the initial dose depends upon the result of the intradermal test. Only in seven cases was failure recorded, and no patient was made worse by the treatment. It can be used in spasmodic asthma in patients of any age, and in careful hands is without harmful effect upon the patient. To ensure success it is essential that the course should be prolonged, and, if necessary, it may be repeated. The results recorded compare very favourably with those of other and more complicated methods of treatment, and appear to justify its more general adoption, particularly in cases which do not yield readily to simple routine measures.

**Acidosis after Administration of Salicylates.**—C. C. Johnson has investigated ("Journal of the American Medical Association," 94, 11, 784) the production of

acidosis following the administration of large doses of salicylates. He finds that the readily absorbable salicylates (sodium and ammonium salicylates and acetylsalicylic acid), in doses equivalent to the full therapeutic dose, administered gastrically and hypodermically, cause a definite and generally marked respiratory stimulation with depletion of the alkali reserve of the blood in rabbits and cats. The hydrogen-ion concentration remains unchanged, and acetone in the urine is not demonstrable. These changes were best reconciled as the equivalent of a fixed acid acidosis, compensated by loss of carbon dioxide. Various possibilities regarding the origin of the increases in the fixed acid occurring in salicyl medication are indicated, but this phase of the question requires further investigation. The use of bicarbonate together with salicylates in full therapeutic doses in rheumatic fever, and also in the treatment of salicyl poisoning, is therefore rational on experimental grounds.

**Thallium Acetate in Ringworm.**—H. McC. Mitchell summarises ("British Medical Journal," 3612, 589) his observations resulting from treating seventy-four children with thallium acetate in cases of ringworm of the scalp. Of these patients, sixty-five were cured after one dose. The author emphasises the following points:—(1) Thallium acetate can be safely used as a depilatory agent where, on account of the age of the patients, x-ray treatment is contraindicated. (2) Accurate weighing of the patient and correct dosage are most important. (3) The after-treatment is all-important in obtaining satisfactory results; the patients should be kept in bed for forty-eight hours after the initial dose of the drug, and from the first day of treatment the scalp should be washed daily with spt. saponis kalinus, or with 10-per-cent. sulphur soap, and a fungicide application be well rubbed in. (4) Careful examination with the ultra-violet beam should be made after depilation is apparently complete, so as to detect any infected stumps which have failed to come out and which would reinfect the new growth of hair. (5) The use of thallium acetate should, as far as possible, be limited to children under the age of five, owing to its toxic effects on those above that age.

**Sclerotising Injections in Varicocele of the Lower Extremities.**—A. A. Schmier discusses, with illustrations ("Journal of the American Medical Association," 94, 16, 1222), the technique of the solutions for injecting or otherwise treating varicocele in the legs. Injection treatment in cases of phlebitis in the acute or subacute stage should be postponed until the inflammation has definitely subsided. Patients presenting a disturbance of the deep veins should never have their superficial veins obliterated. Diabetic patients should no longer be denied the benefits of this method, since there is no added danger of a slough if the injection is given intravenously. Patients suffering with painful varicosities during the first period of gestation can easily be relieved by the injection method. Cases up to the fifth month have been treated successfully. It is, of course, important to abstain from the use of quinine. Similarly, quinine should never be employed in patients who are menstruating. Sodium chloride solution is still the safest and most reliable injection to be generally used. In the very large, and especially the penetrating, type of veins, the double tourniquet method gives the best results, an equal mixture of chloride and salicylate being employed. Quinine should be used with care.

**Explosion Risk in Anæsthesia.**—The risk of explosion in the hospital use of certain anæsthetics is discussed, with the aid of statistics, in two papers contributed to "The Journal of the American Medical Association" (94, 13, 918 and 94, 19, 1491) by H. B. Williams and by a committee of which he is a member. Dr. Williams goes somewhat further in suggesting precautions than the committee: thus, he writes, "ethylene should under no circumstances be used in any operation in which an actual cautery or surgical diathermy apparatus



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is to be used, and ether should never be used in any throat operation in which a cautery or surgical diathermy or similar apparatus is required"; but the committee is content with the proviso that "with neither anæsthetic [ether or ethylene] should the cautery be used anywhere around the head or pleural cavity. When the cautery is used in the abdomen, a screen should be placed to prevent any current of air carrying inflammable gas. . . ." The proportion of deaths from accidental explosion in operating rooms is about 1 in 100,000, "statistically to-day the least of the hazards of anæsthesia," but a sufficiently serious ratio. The most difficult risk to eliminate is apparently that of discharges of static electricity developed inside the apparatus employed. A humidity of 55 per cent. in the operating room is regarded as sufficient, and various measures for reducing the probability of the occurrence of sparks are suggested.

### OPTICS

**A Stereo-fixation Apparatus for Use with Bjerrum Screen.**—E. F. Fincham ("Transactions of the Optical Society," 1929-30, No. 1) describes a new apparatus giving stereoscopic fixation for use with a large Bjerrum screen and allows a field of examination of 35° in all directions from the centre. The apparatus consists of a simple optical system which presents to the eye not under test a magnified image of small design which is the stereoscopic counterpart of a design seen by the other eye at the centre of the Bjerrum screen. The images obtained by the two eyes are fused, giving stereoscopic fixation. Means of adjustment for muscle imbalance is provided. The exploration of the field of vision is carried out in the usual manner.

**Calcium in Glaucoma.**—J. I. Gouterman ("Archives of Ophthalmology," December 1929) points out that many clinical and experimental observations suggest that the sympathetic nervous system plays a major part in the production of glaucoma, and that hyperactivity resulting from irritation and other causes is an important factor. Calcium in excess has a depressing effect on the vasomotor excitability of the cervical sympathetic, as has been shown by experimental, clinical and therapeutic observations. The disturbance of the calcium content of the system can be determined by accurate laboratory methods. In cases of lowered calcium content, the proper balance may be re-established through the administration of calcium, parathyroid, ultra-violet ray therapy or ergosterol. The author suggests that the data already in hand are sufficient to warrant further observation with regard to control of glaucoma through regulation of the calcium balance.

### PHARMACOLOGY

**Substituted Barbituric Acids.**—E. H. Volwiler and D. L. Tabem ("Journal of the American Chemical Society," 52, 4, 1676) have prepared a series of isomeric amyl substituted barbituric acids, and have compared the hypnotic activities pharmacologically. Tables are given showing properties of barbituric acid derivatives. The most effective of the series of compounds, injected subcutaneously in rats are ethyl-(1-methylbutyl)-barbituric acid and ethyl-(2-methylbutyl)-barbituric acid.

**Piperidine Derivatives.**—C. F. Bailey and S. M. McElvain ("Journal of the American Chemical Society," 52, 5, 2007) discuss substituted piperidino-alkyl benzoates and give experimental data. The benzoates have been studied pharmacologically, and a report is summarised in table form. A method is described for the isolation of  $\gamma$ -picoline from coal-tar bases, and a number of new substituted piperidino-alkyl benzoates have been prepared. All of these substances are local anæsthetics. Certain of the phenyl-alkyl substituted derivatives are unusually potent anæsthetics, producing anæsthesia of the rabbit's cornea for a period of from five to six days. Some relationships between structure and pharmacological action are also discussed. In a subsequent issue of the same jour-

nal (52, 5, 2007) the authors study methylpiperidino alkyl cinnamates and compare their pharmacological properties with those of the corresponding benzoates. The cinnamates, they find, are more active physiologically, particularly in the case of the ethyl esters. With the exception of  $\gamma$ -3-methylpiperidinopropyl cinnamate, the toxicities of the members of the cinnamate series are, in general, greater than those of the benzoates.

**Therapeutics of Trypanocidal Action.**—G. A. C. Gough and H. King ("Journal of the Chemical Society," April 1930, 669), in Part IX of their investigation of the connection between the chemical constitution and activity of trypanocidal compounds, arrive at some interesting conclusions. The first principle is the influence of an amide group in converting trypanocidally inactive carboxylic and sulphonic acids into markedly active compounds. The interpretation is that excretion and reduction become operative when arsinic and arsinous acids are injected into the blood stream as soluble sodium salts. The compounds solubilised by carboxyl and sulpho groups remain soluble upon reduction to arsinous condition (and hence rapidly excreted), whereas the amide compounds no longer form soluble salts after reduction and free arsinous acids when liberated into the blood in a colloidal state. The thiol compounds in the tissues probably act as receptors for the arsinous acid group. The arylthioarsinites would in general escape excretion, being bound to proteins of all degrees of complexity, and the continuous production of highly toxic arsinous acids over an extended period would account for the disappearance of trypanosomes and the resultant cure. The wide variation in chemotherapeutic efficiency of arsenicals might be ascribed to ease of reduction to arsinous state and differences in formation and hydrolysis of thioarsinite complexes. Of the new amides, the ethylamide of hippuroarsinic acid proved useful, since it did not cause noticeable nervous symptoms in rats as was the case with the amides of meta- and para-substituted arsinic acids containing arsenic in quinquivalent state.

### PHOTOGRAPHY

#### Solarised Latent Image of Photographic Emulsions.

—A. P. H. Trivelli ("Journal of the Franklin Institute," 209, 3, 373) discusses the reversal of developability of photographic plates or films. Initially continued exposures result in increased density of deposit until a limit or maximum density is attained. Developability diminishes with still longer exposures to a minimum and then again increases, this being the region of solarisation. It is pointed out that the problem which had to be solved in the formation of the normal latent image was the movement of the silver ion, but it is the movement of the bromine ion which controls the formation of the solarised latent image. The idea that bromine is coming from the interior of the grain to diminish the size of the speck of silver bromo-iodide must be abandoned. This means that the process of forming the solarised latent image is mainly restricted to the surface of the grain. Thus two reactions run in opposite directions, one increasing the size of the silver speck by printing-out decomposition, and the other diminishing its size through increasing pressure of halogen, which dominates during solarisation because it is no longer absorbed by silver sulphide.

**Desensitising Properties of Chrysoidine.**—Frances M. Hamer ("Photographic Journal," May, 1930) states that a sample of pure chrysoidine Y.L. proved to be almost as powerful a desensitiser for Ilford special rapid plates as safranine, although less good for panchromatics. On development of a plate bathed in a 1 in 1,000 solution there was no image whatever, but with a 1 in 5,000 solution relatively slight loss of image occurred. Some derivatives of chrysoidine were then tested, and most of them were inferior to the particular sample of chrysoidine, as is the methyl derivative. Bromochrysoidine and a chloromethyl derivative of an isomeride of chrysoidine are approximately equal to safranine. The strongest desensitisers are chloro-



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chrysoidine and its methyl derivative, both of which are more powerful than safranin. All six give clean plates with little or no loss of image when used in a 1 in 5,000 solution. An interesting point observed is that with dyes of the chrysoidine class, desensitisation is a property only of the hydrochlorides and not of the bases. It is therefore to be expected that the desensitisation conferred by a preliminary bath of chrysoidine hydrochloride would be destroyed by the alkali in the developer. Tests with the five hydrochlorides having desensitising capacity equal to or greater than safranin showed this to be so, and it is therefore concluded that no practically useful desensitiser can be hoped for from the chrysoidine class of dye.

**Colour with Chloro-bromide Papers.**—A. Jackson and W. A. Potts ("British Journal of Photography," April 4, 1930) state that prints varying in colour from cold sepia to a brick red can be obtained with the following developer (stock solution):—

Adurol ... ..	30 gr.
Hydroquinone ... ..	30 gr.
Sodium sulphite, cryst. ... ..	500 gr.
Sodium carbonate, cryst. ... ..	500 gr.
Potassium bromide ... ..	3 gr.
Water ... ..	to 10 oz.

A 10 per cent. solution of potassium bromide is also required. Negatives with strong contrasts are essential, and the first step is to obtain correct exposure for a black print in full strength developer at 65°-70° F., the process to be complete in three minutes. The following table is given as being correct for Wellington mezzotint papers:—

Exposure	Dilution of developer	Extra bromide solution per oz. stock developer	Resulting colour
<i>Times</i> Correct	<i>Times</i> Full strength	<i>Minims</i> None	black
2½	10	20	brown
4½	20	90	sepia
5	25	100	red brown
6	30	120	red brick

Judgment of the print for depth while in the developer is a matter of practice.

### VETERINARY MEDICINE

**Canine Hysteria.**—R. C. G. Hancock ("Veterinary Journal," March 1930) states that he has had great success in dealing with this disease by the following method:—Directly an attack occurs, give the patient and those dogs on biscuit diet associated with him a sharp dose of arecoline hydrobromide in water. Disinfect kennels and biscuit sacks, and destroy biscuit by burning. Keep affected animals on milk and water in equal parts for twenty-four hours. Sedative drugs to be employed at discretion and a capsule of chloretone and belladonna compound is excellent for this purpose. It contains chloretone 1½ gr., potassium bromide 2½ gr., belladonna extract ½ gr. The dose for a 20-lb. terrier is one capsule three times daily. Where multiple outbreaks occur in a neighbourhood, it can often be observed that one store or shop is the radiating centre of the disease regarded from the biscuit point of view. When the particular batch of biscuit is sold out, the outbreaks will cease, unless the unfortunate dealer is the subject of a fresh visitation from the new consignment.

**Anæmia in Young Pigs.**—R. A. Craig ("Journal of the American Veterinary Medical Association," April 1930) has investigated the relation of light to anæmia in young pigs. The animals were divided into three groups, two of which were exposed for thirty to thirty-five hours per week in small houses enclosed in common glass and glass giving a longer spectrum. The third group was irradiated with a carbon arc lamp for four hours daily. There resulted very little difference in the hæmoglobin content of the blood of the pigs in these three groups and the controls. Liver meal and wheat embryo fed to brood sows throughout the gestation period and after farrowing did not prevent anæmia

in their pigs. Liver extract given in 2 gm. doses daily to pigs one to seven days of age and older did not prevent anæmia. The complaint did not develop in pigs that received daily doses of iron. Of these animals, one group was given 5 c.c. of a 5 per cent. solution of dialysed iron; a second group 10 mgm. of pure iron in the form of ferric chloride; and a third group 10 mgm. of ferric citrate plus 10 mgm. of copper sulphate.

**Prevention of Milk Fever.**—J. Russell Greig ("Veterinary Record," April 5, 1930), in a study of eighty-two cases of milk fever, has found that the disease is invariably accompanied by a pronounced fall in the blood calcium values. Inflammation of the udder produces a rapid and regular rise in the blood calcium values, and this rise is concurrent with, and bears direct relation to, the disappearance of the symptoms of the disease. Injection of calcium gluconate elicits specific curative response in milk fever. It is concluded that the essential nature of milk fever is acute calcium deficiency. It is considered probably that the occurrence of the disease may be partially controlled by ensuring an adequate supply of calcium in the ration, but on the available data no definite conclusion can be formed. The hitherto empirical method of prevention, which consists in allowing the udder to remain firmly distended with milk for the seventy-two hours succeeding calving, may now be regarded as rational in that it prevents the sudden transference of large quantities of calcium from the blood to the milk. This procedure, however, is uneconomical. Observations suggest that the disease may be prevented by commencing vitamin D administration about five days before calving. An important general principle governing the counter-action effects of the calcium-controlling mechanism upon sudden alterations of the normal blood calcium level appears to have emerged. The subcutaneous injection of calcium gluconate can abort the milk fever attack. Evidence is submitted that calcium injection immediately after calving and preferably reinforced by a second injection about 24 hours later would prove a preventive treatment.

**Calcium Gluconate as a Therapeutic Agent.**—W. Hepburn ("Veterinary Record," May 17, 1930) has treated forty-four cases of milk fever with calcium gluconate only, and has found one administration subcutaneously of 125 c.c. to be sufficient except in five cases. All cases showed almost immediate amelioration of the symptoms and made uninterrupted recoveries. He also records the treatment of nineteen cases of atypical milk fever, or, so called, staggers, and, with three exceptions, all recovered. In the treatment of parturient red water Mr. Hepburn has used calcium gluconate in conjunction with other treatment, viz., calcium and ferric chlorides internally, with satisfactory results. He also records the treatment of a sow suffering from parturient eclampsia. A subcutaneous injection of 80 c.c. of calcium gluconate was given, and in half an hour the animal lay down and remained quiet.—Mr. J. F. D. Tutt, writing in the "Veterinary Journal" (April, 1930) on "the use of calcium gluconate in milk fever," records six cases in which it was tried with unsatisfactory results. He states: Assuming that these cases were not due to a hypocalcæmia might not the use of calcium gluconate have aggravated the condition instead of curing it. Assuming that these cases were true milk fever cases the use of calcium gluconate should have expedited recovery. If these cases were not cases of milk fever:—(a) What were they due to? (b) How can the practitioner quickly distinguish between true milk fever and cases which are not milk fever? A rapid and reliable blood test would appear necessary, but is not always practicable when miles away from home. Assuming that these cases are not milk fever, then there exists in milk cattle after calving a condition that is clinically indistinguishable from milk fever, until it is noticed that there is no improvement after mammary inflation with oxygen or air. Cases which do not respond to mammary inflation may be due to some remote cause (kidney disease for example).



## Trade Notes

DAISY, LTD., Horsforth, Leeds, are supplying a show-card container with orders for a dozen packets of their well-known beadache powders.

WARRICK BROTHERS, LTD., manufacturing chemists, Nile Street, City Road, London, N.1, are desirous of undertaking the manufacture and, if desired, the distribution of high-class pharmaceutical and toilet preparations.

SPONGES.—Southall Brothers & Barclay, Ltd., Lower Priory, Birmingham, elsewhere in this issue make an interesting offer in connection with their boneycomb sponges, which are selected for their uniformity in body, shape and texture.

YEAST TABLETS.—Thompson & Capper Wholesale, Ltd., Manesty Buildings, College Lane, Liverpool, offer to send a 1s. 6d. package of their Sustenoid brand yeast tablets free of charge to any chemist who has up to the present not stocked this popular line.

ENGLISH CASTOR OIL.—The Premier Oil Extracting Mills, Ltd., Hull, send us a sample of English made pharmaceutical castor oil, which we find to be quite tasteless and water-white. It is, in fact, superior in colour to foreign castor oil, and competitive in price.



PEPSODENT TOOTH PASTE.—The Pepsodent Co., 8 India Street, London, E.C.3, are due to advertise on the front page of the "Daily Mail" on June 26, which will be the third this year. About the same time the retail trade is to be circularised regarding a new window display, the showcard relating to the scheme being reproduced herewith.

MR. BELIRAM B. MEHTA, proprietor of the firm of Beli Ram & Bros., wholesale druggists, 304 Princess Street, Bombay, will be in London in July-August for business purposes. His address will be care of Grindlay & Co., Ltd., 54 Parliament Street, S.W.1.

SHELL PRODUCTS.—Shell Mex, Ltd. (technical products department), 6 Great St. Helens, London, E.C.3, call attention in the advertisement pages of this issue to the new products they have recently placed on the market—liquid floor polish, furniture oil, insect pest spray and household oil.

CLOSED FOR OUTING.—The following manufacturers have notified us that owing to the annual staff outing their premises will be closed on the date mentioned:—Burgoyne, Burbidges & Co., Ltd., London, E.6, on July 5; C. J. Hewlett & Son, Ltd., London, E.C.2, on June 28; Thomas Hodgkinson, Prestons & King, London, E.C.2, on June 28; The British Drug Houses, Ltd., June 21.

BURROUGHS WELLCOME & Co., Snow Hill Buildings, London, E.C.1, have issued the second of a series of interesting booklets on "Photography Simplified." This edition deals with the question of development by the time and temperature method, as well as the relationship between exposure and development. The after-treatment of negatives by intensification or reduction is also described, the illustrations showing the difference between correct development, over- and under-development, and the improvement in faulty negatives which can be effected by using Tabloid reducers or intensifiers. Notes are included on developers in relation to particular classes of work. A copy of the booklet will be sent on application.

## Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1930, p. 341.

(From "The Trade Marks Journal," May 23, 1930.)

- "BIFF FLYCATCHER" with picture of boy stretching out abnormal sized arm; for gummed fly paper (2). By Raybould, Whitehouse & Co., Ltd., Wellington Road, Dudley. B511,180.
- "PYRETHEX"; for agricultural chemicals, etc. (2). By The Strawson Chemical Co., Ltd., 79 Queen Victoria Street, London, E.C.4. 511,735. (Associated.)
- "T P N" over words "TEEP-HYD-ROIN"; for medicinal chemicals (3). By Teucer, Ltd., 165 The Broadway, Southend, Essex. 509,476. (Associated.)
- "PRIORY" COD LIVER OIL with label design; for medicinal cod liver oil (3). By Southall Bros. & Barclay, Ltd., 19, 20 and 21, Lower Priory, Birmingham. 511,602. (Associated.)
- "CHOLONON"; for medicinal chemicals (3). By Chemische Fabrik Promonta G.m.b.H., Hammerlandstrasse, 162/172, Hamburg 26, Germany. 512,131.
- "MEROLEX"; for ointments (3). By D. Proudfoot, "Mel-fort," Spylawbank Road, Colinton, Edinburgh. 512,247.
- "COLTAGRAPH"; for scientific instruments, etc. (8). By W. H. Colt, Ltd., Bush House, Aldwych, London, W.C.2. 512,125.
- "RASPEAR"; for preparations for making beverages (42). By Stotherts, Ltd., North Road, Atherton. 503,674. (Associated.)
- "RAMONO"; for perfumed toilet soaps (43). By R. F. Henson, 7 to 12 Greenhill Rents, London, E.C.1. 509,865.

Circular design depicting bridge over water; for solid perfumes (43). By Société Les Parfums Gueneaux, 40 bis Avenue de la Marne, Asnières (Seine), France. 510,075.

(From "The Trade Marks Journal," June 4, 1930.)

- "TELIMA"; for photographic plates, etc. (1) and for photographic papers (39). By I. G. Farbenindustrie A.G., Mainzerlandstrasse 28, Frankfurt-on-Main, Germany. 511,760/761. (Associated.)
- "DUROBELLE"; for chemicals (1). By A. Sanderson & Sons, Ltd., 16a Newman Street, London, W.1. 512,324.
- "IK-THOL-INE"; for disinfectant soap (2); medicated soap (3); and for toilet soap, etc. (43). By T. F. Brisow & Co., Ltd., Edgware Road, Colindale, Hendon, London, N.W.9. 510,860/861/862. (Associated.)
- "ELECTROLUX CRYSTALS"; for crystalline disinfectants, etc. (2). By Electrolux, Ltd., 153 and 155, Regent Street, London, W.1. 510,929. (Associated.)
- "STERONA"; for disinfectants (2). By J. S. Craig & Co., Ltd., 85 to 127, Portman Street, Kinning Park, Glasgow, S.1. 511,926.
- "MIRADOS"; for insecticides (2). By R. Demuth, 68 Salisbury Road, London, N.W.6. 512,053.
- "HANKEYS ALL FOURS MIXTURE" with label design; for a liquid lung preparation, etc. (3). By Hankeys' Ltd., Greyhound Yard, Burnley Road, Brierfield, Lancashire. B507,645.
- "SOLITH" pierced by an arrow; for an internal preparation for gout, etc. (3). By J. R. Betts, 154 Ashted Row, Birmingham. 510,035.
- "BIOMINZ"; for medicinal chemicals (3). By Bio-chemisches Laboratorium Bioteuma G.m.b.H., 32 Regentenstrasse, Cologne-Mülheim, Germany. 510,717.
- "SHELL" for medicinal petroleum products (3). By The Asiatic Petroleum Co., Ltd., St. Helen's Court, Great St. Helens, London, E.C.5. 511,641. (Associated.)
- "LESWIL"; for medicinal chemicals (3). By G. R. Williamson, 423 Foleshill Road, Coventry. 512,453.
- "TONEPHIN"; for medicinal chemicals (3). By Bayer Products, Ltd., 31 to 34 Basinghall Street, London, E.C.2. 512,008.
- "SILVIBRO"; for medicinal chemicals (3). By Silviro, 1 St. Albananlage, Basle, Switzerland. 512,557.
- "BORMOL"; for medicinal chemicals (3). By W. J. Patey, 76 New Bond Street, London, W.1. 512,771.



## Births

Notices for insertion in this column must be properly authenticated.

ASTIN.—On June 14, the wife of H. W. Astin, M.P.S., F.S.M.C., 2 Claremont Road, Surbiton, of a son.

HUGHES.—At 25 Rectory Avenue, High Wycombe, on June 6, the wife of J. M. Hughes, chemist and druggist, of a son.

RAMSAY.—At "Dalhousie," Underwood Road, Rutherglen, Glasgow, on June 10, the wife of George G. Ramsay, chemist and druggist, of a son.

## Marriages

ARNOT—GALE.—At Christ Church, Gateshead, on June 4, by the Rev. F. B. Philips, Charles William Arnot, M.B., B.Sc., Gateshead, to Phyllis Gale, chemist and druggist, elder daughter of Mr. William W. Gale, chemist and druggist, Gateshead.

CAMERON—COULSON.—At the Congregational Church, Braintree, on June 9, Andrew Hamilton Cameron, chemist and druggist, son of Mr. John M. Cameron, chemist and druggist, Braintree, to Doris Coulson.

COX—TAYLOR.—At Radnor Park Congregational Church, Folkestone, on May 31, Arthur G. Cox to Irene Alice, younger daughter of Mr. C. J. Taylor, Ph.C., Cheriton and Folkestone.

MACKAY—GILMOUR.—At Downahill House, Glasgow, on June 11, by the Rev. John MacLeod, Donald MacKay to Grace Winifred, daughter of Mr. Andrew B. Gilmour, M.P.S., superintendent, Checking Bureau, and of 8 Hertford Avenue, Glasgow, W.2.

TINKER—AUCKLAND.—At the Parish Church, Skelmanthorpe, Huddersfield, on June 9, Ronald N. Tinker, chemist and druggist, only son of Mr. G. Tinker, chemist and druggist, to Lilian Auckland.

## Deaths

CHARLES.—At Craig-y-Don, Tenby, on June 16, Mr. Richard Emmet Charles, retired chemist and druggist, aged eighty-four. Mr. Charles carried on business for many years at Brecon. He is survived by a widow and a daughter.

HORSFIELD.—At Bridlington, on June 13, Mr. Edmund Horsfield, chemist and druggist, aged seventy-three. Mr. Horsfield had lived in retirement at Bridlington for twenty-seven years, and was previously in business in Leeds.

LENFESTY.—At 8 Parkdale, Wolverhampton, on June 6, the widow of the late Mr. W. G. Lenfesty, chemist and druggist, Piccadilly, London, W.1, aged ninety.

MACFARLANE.—At 9 Grosvenor Terrace, Glasgow, on May 30, Mary, daughter of the late Mr. Patrick Macfarlane, chemist and druggist, Alexandria.

REES.—Recently, Mr. Thomas Rees, father of Mr. W. I. Rees, chemist and druggist, Mountain Ash.

SALAMON.—At a nursing home, on June 16, Mr. Marcus Salamon, late of the Commercial Sale Rooms, Mincing Lane, London, E.C.3, aged seventy-six.

WALTERS.—At The Pharmacy, Whitland, on June 17, Mr. Howell Jones Walters, chemist and druggist, aged fifty-eight. After experience as an assistant in Hampstead and elsewhere, Mr. Walters commenced business on his own account at Whitland about thirty years ago. The death of his son four years since had impaired his health.

## Personalities

MR. A. H. HALE, head of the School of Pharmacy, Chulalongkorn University, Bangkok, and vice-president of the Pharmaceutical Society of Siam, will be in England on leave at the end of June.

MR. JOHN GIBSON, F.S.A., chemist and druggist, Hexham, has written a new book on "The Road of the Romans," dealing particularly with the history of Newcastle-upon-Tyne and Carlisle.

MR. T. W. TULLETT, 94 Kneller Road, Whitton, Twickenham, has joined the staff of Thomas Hodgkinson, Prestons & King, 262 Bishopsgate, London, E.C.2, and will represent them in the West and South-West of England.

At the funeral of the late Mrs. Harbottle, Crwys Road, Cardiff, whose death was reported in our issue of June 14 (p. 726), the Cardiff Pharmacists' Association was represented by Messrs. J. D. Jenkins, E. Poole and J. M. T. Purvis; the Association also sent a wreath.

THE following members of the Cardiff Pharmacists' Associations and local Branch of the Pharmaceutical Society are the elected delegates to the British Pharmaceutical Conference in July:—Mr. J. D. Jenkins (chairman of the Conference Local Executive), Mr. Vernon Lloyd, B.Pharm. (Welsh College of Pharmacy), and Mr. A. J. Harris (Robert Drane, Ltd.), [Corrected note.]

## Wills

MR. WILLIAM ROBERT TILBURY, of W. R. Tilbury & Son, brush manufacturers, 47, Frampton Park Road, Hackney, E., left £5,606, the net personalty being £5,516.

MR. WILLIAM MACKENZIE MANSON, M.P.S., of 395 Morningside Road, Edinburgh, chemist, who died on March 15 last, left personal estate in Great Britain valued at £4,606 11s. 11d.

MR. THOMAS BURRELL, Ph.C., F.S.M.C., of 19 Rillbank Terrace, Edinburgh, who died on February 18 last, aged seventy-one, left personal estate in Great Britain valued at £13,035 18s. 8d.

MR. GEORGE HOWARD FISHER, of 155 Walmer Road, Notting Hill, London, W.11, chemist and druggist, who died on January 9 last, aged fifty-five, left estate of the gross value of £577 10s. 7d.

MR. WILLIAM HENRY IRELAND, of 1 College Street, College Green, Bristol, formerly in business as a pharmacist, who died October 24 last, aged seventy-nine, left estate of the gross value of £291 17s.

MR. WILLIAM AUSTIN ATTREE, of 106 St. Andrew's Road, Southsea, Hants, chemist and druggist, formerly in charge of the Guardians' Dispensary, who died on May 9 last, left estate of the gross value of £24,963 4s. 11d., with net personalty £23,589 9s. 6d. His bequests include £200 to the Pharmaceutical Society's Benevolent Fund.

## Information Department

### INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

B/126. Bijou Enchante solid perfume	B/186. Johnson's Soothing Syrup (present suppliers)
B/196. Creolac	R/136. Paper barometer
B/186. Crêpe rubber hot water bottles	Calenders
K/146. "52 Lavender"	F/65. West's electric comb



# Observations and Reflections

By Xrayser III

## Inadequate Remuneration

for the dispensing of medicines is afflicting our Belgian brethren even more keenly than it troubles ourselves, according to M. Pattou's article (*C. & D.*, June 14, p. 718); and it is not surprising, in the circumstances, that grave dissatisfaction should prevail in the Belgian pharmaceutical community. Fourpence per prescription is a truly absurd figure, since it can barely provide for more than the cost of the drugs compounded, if we may compare the position with that prevailing in this country. Just as the increased cost of living renders the payment offered to the Belgian pharmacists inequitable, so I feel that the increased cost of living and of carrying on business has not been sufficiently seriously taken into account here since the termination of the great war. The trouble is that our remuneration has always been decided on the basis of a given amount of money being assumed to be sufficient to make provision for the needs of all the insured persons in the country, while of late there has been a tendency on the part of the responsible Government officials to make unfair excuse that the need for national economy precludes them from asking for an increased grant on our behalf. It is to be hoped that this excuse will not prove as effective when next our representatives are negotiating, as it has proved during the past two or three years. Else we must decide to regard the word "negotiating" as implying simply hopeless talk on the one side and a take-it-or-leave-it attitude on the other.

## The Proposed Poisons Board,

as might have been expected, does not meet with the approval of Mr. W. Marshall Freeman (p. 730), who rightly attacks Part II of the draft Bill. There are four points that strike him as needing special attention, and I should imagine that most of your readers will be in general agreement with his expressions of opinion on those points. There is little doubt in my mind that the whole idea underlying paragraph 13 of the Departmental Committee's report is, as suggested by Mr. Freeman, that the Home Office officials are bent upon securing an undesirable control of the business in poisons generally. Greater opposition should have been manifested by those responsible for safeguarding the interests of chemists and druggists at the time the Dangerous Drugs Acts were being forced through Parliament, and a much greater fuss should have been made on our behalf when the Regulations under those Acts were in the making. Recent reports of the high-handed manner in which chemists have been persecuted and threatened because of assumed negligence in the storage of poisons, and non-observance of more or less impossible rules, suggest that a time may be approaching when something in the nature of a revolt against proceedings dictated by Home Office obtuseness will manifest itself. Meanwhile, it behoves those engaged in examining the draft Bill, with a view to ascertaining how best it can be amended to satisfy pharmaceutical opinion, not to assume too readily that chemists and druggists as a whole are prepared to follow their lead blindly. It may even come to the setting up of an independent Protest Committee, which shall voice the grievances of the retail drug trade and take steps to air them in Parliament. The increasing encroachments of Government departments are none too popular with many of our legislators, and it should not be outside the bounds of what is possible to have the findings of the Departmental Committee set aside in order that there may be a more extensive inquiry by a Royal Commission, or some other body which could be relied upon to consider the matters in dispute impartially.

## •Some Time Ago

there came into my hands a copy of the works of Glauber, translated by Christopher Packe. This had previously been in the possession of that versatile genius James Nasmyth, who was greatly attracted by anti-quarian lore, especially if it was associated with alchemy. His cleverness with the pencil is well known, and an example of it was given in your pages, twenty-four years ago, in the drawing "The Alchemist in Difficulty and Doubt." The margins of my "Glauber" are decorated by Nasmyth in his usual whimsical manner; the chief effort of his pictorial ingenuity is on the extra wide margins of one of the plates. This is a representation of a square-built furnace, complete with alembic and receiver, situated in the desert with the pyramids in the background. In the sky is a figure of Saturn surrounded by his rings and eight satellites. By the side of the furnace is the venerable figure of Geber sitting in meditative posture—the artist's legend is "Geber with a head-ache." For eleven centuries this man—by the name of Geber—has stood at the head of the list of all the famous chemical experimentalists. How much we owe to him in the matter of chemical discoveries we do not fully know, but we are in the way of learning soon, if Dr. Holmyard succeeds, as it is earnestly to be hoped he will, in bringing to a conclusion the complete edition of Geber's works in course of publication in Paris. It is to Dr. Holmyard that we are indebted, in very large measure, for the certitude that Geber is an historical personage, that he was a renowned chemist and that his name was Abu Musa Jabir ibn Hayyan.

## The Prime Obstacle

to a proper estimation of the value of Jabir's writings and to a proper discrimination of those which are probably authentic has been the need for the correlation of Latin translations with the Arabic originals, of which but few have been traced. Now we have scholars whose Oriental culture is surmounting the difficulties besetting their predecessors of fifty years ago. There is one man whose name should be recalled, because a century ago he clearly saw the necessities of this particular case of Geber. It was John Beckmann (who wrote a most interesting book, "A History of Inventions and Discoveries"), who, in writing of our author, said:—"What a respectable people the Arabs! We are indebted to them for much knowledge as well as for many inventions of great utility; and we should thank them still more were we fully acquainted with the benefit which we have derived from them. What a pity that their works should be suffered to moulder into dust without being used! What a shame that those acquainted with this rich language should meet with too little encouragement to instruct many scholars! The few translations which exist have been made by persons who were not sufficiently acquainted either with languages or the sciences. On that account they are, for the most part, unintelligible, uncertain, in many places corrupted, and, besides, exceedingly scarce. Those even who obtain them are in the same state as if they had made their way with great trouble to a treasure, which they can at length perceive, at a distance, through a narrow grate. Had I still twenty years to live, and could hope for an abundant supply of Arabic works, I would learn Arabic. But *ὁ βίος βραχύς ἢ δὲ τέχνη μακρὴ*." Jabir has been called the Hippocrates of chemistry; it therefore seems appropriate that Beckmann should close his complaint with the Hippocratic aphorism from which we may draw the same sustenance as apparently he did.





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## Editorial Articles

### Royal Commission on Licensing

WE are now able to give the memorandum of evidence which was presented on March 28 last on behalf of the Pharmaceutical Society of Great Britain and of the Retail Pharmacists' Union by Mr. H. N. Linstead and Mr. G. A. Mallinson respectively. Its terms are:—

(1) The evidence will be given by:—Mr. Hugh Nicholas Linstead, barrister-at-law, pharmaceutical chemist, secretary and registrar of the Pharmaceutical Society; Mr. George Arthur Mallinson, barrister-at-law, pharmacist, secretary of the Retail Pharmacists' Union and of the Chemists' Defence Association, manager and secretary of the Chemists' Mutual Insurance Co., Ltd., and of the Chemists' Sickness and Provident Society.

(2) The Pharmaceutical Society of Great Britain was founded in 1841 and incorporated by Royal Charter in 1843. Chief amongst its chartered objects are the advancement of chemistry and pharmacy, and the formation of a uniform system of education for persons practising the same.

The Pharmacy Acts of 1852, 1868 and 1908 confirmed and extended the Charter and gave the Society additional duties and responsibilities.

The Society's statutory powers include the education, examination and registration of persons engaged in pharmacy. Its membership numbers 14,500, and includes pharmacists engaged in manufacturing as well as those engaged in retail business on their own account, their managers and assistants.

(3) The Retail Pharmacists' Union was founded in 1921 to carry on many duties which by a decision of the High Court are outside the province of The Pharmaceutical Society.

The membership of the Union is confined to persons, firms and bodies corporate actually carrying on the business of chemists and druggists, and its membership exceeds 7,000 out of a possible total of approximately 8,500. It specially represents those who carry on the business of chemists and druggists or dispensing chemists as proprietors.

(4) The position of those carrying on the business of chemists and druggists in accordance with the Pharmacy Acts under the licensing laws has been somewhat anomalous, as will be seen from the following statement made to the Commission by the witnesses who appeared for the Board of Customs and Excise (Minutes of Evidence, Tuesday, November 19, 1929, No. 4):—

"The sale of medicated wines and spirits, etc.

"849. Section III of the Licensing (Consolidation) Act provides an exemption from the necessity for a justices' licence in respect of 'the sale of medicated . . . spirits or spirits made up in medicine and sold by medical practitioners or chemists and druggists.' In the Revenue law (the Finance (1909-10) Act) there is however, no similar exemption from the liability to hold an excise licence; nor is there any exemption in favour of medicated wines, perfumery or spirituous flavouring essences, though it is understood that legally all of these are within the term 'intoxicating liquor.' In other words, in strict law the chemist selling a



spirituous medicine, the grocer selling flavouring essences, and the hairdresser or draper selling perfumery should hold a retailer's licence and pay the appropriate duty.

"In practice, extra-statutory 'concessions' have been made, under which spirituous medicines and medicated spirits and wines are allowed to be sold without an excise licence if the degree of medication and the directions as to dose, etc., on the labels under which the preparations are sold are such as to satisfy the Commissioners of Customs and Excise that the articles are *bona fide* medicinal. Nor have licences ever been required to be held for the sale of perfumery or flavouring essences. A further extra-statutory concession permits the sale by qualified chemists, for medical and scientific purposes, of spirits of wine in quantities not exceeding 5 oz. at one time, though legally a spirit retailer's on-licence (i.e., a publican's licence), at a duty of half the annual value, ought to be held.

"Speaking from the Revenue standpoint, the only suggestion which the Commissioners of Customs and Excise have to make is that statutory recognition might be given to the existing practice, which for a long period has worked satisfactorily so far as concerns the safety of the Revenue."

(5) The evidence which the Pharmaceutical Society and the Retail Pharmacists' Union desire to give will be in favour of establishing the existing practice upon a statutory basis, with certain modifications which experience has shown to be desirable.

(6) The Spirits Act, 1742, provided the following exemption:—

"Provided always, and be it enacted by the authority aforesaid, that this Act, or anything therein contained, shall not extend to any Physicians, Apothecaries, Surgeons, or Chymists, as to any spirits or spirituous liquors which they may use in the preparation or making up of medicines for sick, lame or distempered persons only."

The Licensing (Consolidation) Act of 1910, Section 111 (2) (h) says:—

"Nothing in this Act shall affect or apply to—(h) The sale of medicated or methylated spirits; or of spirits made up in medicine and sold by medical practitioners or chemists and druggists."

(7) The foregoing appear to be the only statutory authority for the exemption of chemists from the necessity to hold licences in respect of the spirituous medicines which they compound and sell.

(8) It will be observed that no mention is made of medicated wines or sweets, or of wines or sweets made up in medicine. The sale of medicinal preparations of this class without excise licence has been made the subject of extra-statutory concessions on the part of the Board of Customs and Excise.

(9) It is submitted that the exemption contained in the Licensing (Consolidation) Act, 1910, should be amended by the addition of the words "or wines or sweets" after the word "spirits" in the first and second lines. The exemption would then read as follows:—

"(h) the sale of methylated spirits or medicated spirits, wines or sweets; or of spirits, wines or sweets made up in medicine and sold by medical practitioners or chemists and druggists."

(10) The Board of Customs and Excise has hitherto given decisions whether an excise licence is required for the sale of any particular article. This arrangement works well in practice, and the Pharmaceutical Society and the Retail Pharmacists' Union suggest that it should be continued for preparations which may fall within the scope of Section 111 of the Licensing (Consolidation) Act, 1910. The present position is anomalous. A ruling by the Board of Customs and Excise that a particular article is not excisable is no

guarantee to the seller that he is free from liability to prosecution.

(11) There is at present an extra-statutory permission under which chemists are entitled to sell rectified spirit in quantities not exceeding five ounces for medical and scientific purposes. This concession should, in the opinion of the Pharmaceutical Society and of the Retail Pharmacists' Union be placed on a statutory basis and the quantity increased to ten ounces, as five ounces has proved in practice to be too small a quantity.

(12) The Commission will no doubt desire to take note of the fact that there is at present no statutory provision for the supply of excisable liquors such as brandy and whisky for medical use in emergencies.

The usual lengthy examination of the witnesses on this memorandum by members of the Commission followed; but in view of the fact that some emendations in the report of this examination may have been since made, we defer publishing our report until the official version has been issued. This, we understand, may be expected shortly. We may, however, note now one or two important points. In reply to a question by the chairman (Lord Amulree) as to whether in the case of medicated spirits the medicine was dissolved in the spirits, Mr. Mallinson said that usually it was, but that sometimes, of course, the preparation was a mixture. In reply to a further question as to whether medicated wines were really certain nutritive factors made up with wine, Mr. Linstead said that he thought they were medicinal rather than nutritive, and that it was only because they were essentially medicinal they were medicated wines. On the question of the difference between medicated spirits and medicated wines he inclined to regard this as technical, but, generally speaking, medicated wines had as their basis the produce of grapes, while in the case of spirituous medicines the basis was a distillate of some fermented saccharine solution. As might be expected, too, reference was made to Wincarnis and the recent Brighton case. An avowed advocate on the Commission of the imposition of restrictions on the sale of medicated wines inquired if there was not a recent decision which placed Wincarnis with Quinine in the category of spirits for the sale of which a licence is necessary. In reply, Mr. Mallinson emphasised the fact that the decision in the Brighton case established the position that the justices want chemists to hold an excise licence which the Board of Customs and Excise say they need not hold. Replying to another member of the Commission, he further said that chemists were not asking for an exemption from liability to take out a licence to sell wines now excisable; they merely want to have their position as described in the memorandum of evidence regularised. Pending the official publication of the detailed examination of the witnesses, comment upon some further points of importance to chemists and druggists may conveniently be deferred. We will only now say that we regret that the occasion of the appearance before the Commission of the witnesses for the Commissioners of Customs and Excise does not appear to have been taken advantage of to ask for some explanation of the official attitude towards the sale of medicated spirituous preparations, which was disclosed in the letter printed on page 786 of THE CHEMIST AND DRUGGIST of December 28 last. This, we may remind our readers, indicated the granting of an unrestricted right to any person, whether a



duly qualified medical practitioner or chemist and druggist or not, to sell medicated spirituous preparations without licence, a concession which would mean a breach with a long-established practice. Medical men and chemists and druggists are thus face to face with a serious inroad upon a valuable privilege, and they may find it desirable to consider what steps they can take to defend their threatened position. Any action to this end might take the form of the promotion of a Bill in Parliament to secure legal recognition of the privilege, or it might be confined (for the present, at all events) to an effort to induce the Commissioners of Customs and Excise to reaffirm the departmental rule which had confined to medical practitioners and chemists and druggists the right to sell these preparations without licence. The attitude of the official witnesses before the Commission was clearly sympathetic to chemists' interests as regards this. The first of these alternatives would probably have to be ruled out as impracticable pending the issue of the report of the Licensing Commission now sitting. The other of the two alternatives—an appeal to the Commissioners—should present no such difficulties, and its outcome could have little if any effect upon the result of any steps taken to secure a change in the law. In the meantime it may be useful to have in mind a short view of the present state of the law as to the sale of these medicated spirituous preparations as modified by the latest pronouncement of the Commissioners. A licence, both excise and justices', is required as a rule for the sale by retail of spirits; and "spirits," by the principal Act for purposes of excise on the subject, are defined as spirits of any description, including all liquors mixed with spirits, and all mixtures, compounds or preparations made with spirits. This, it is clear, would include any spirituous preparation. The Act under which the duty on excise licences is at present charged was passed since this definition was promulgated, and in express words adopted the definition. Hence the Commissioners of Customs and Excise could, if they saw fit, insist upon the appropriate excise licence to sell spirits being taken out by anyone who sells a spirituous preparation. But in the exercise of their discretion they do not require such a licence to be taken out in the case of sales of medicated spirituous preparations subject to the conditions set out in the letter, and this decision there is in practice no means of appealing against, as the offence of selling without an excise licence where one ought to be held is an excise offence, and any penalty incurred for it can be sued for only by order of the Commissioners or at the suit of the Attorney-General. Chemists and druggists do not question the existence of this power in the Commissioners of Customs and Excise in reference to the requirement of an excise licence. What they feel aggrieved over is that the power should be exercised so as to grant exemption to "ordinary shopkeepers and other persons." The privileged position which chemists have hitherto occupied in this regard they have looked upon as some recognition of the special qualification which their training gave them to handle medical preparations of all kinds. And they can point to the satisfactory working of the system over a long series of years as a reason why it should not now be disturbed by throw-

ing open the field of business without distinction. In support of their view, too, they can point to the fact that the Legislature has itself recognised the special position in which they stand towards this subject. We have previously referred to the fact that there exists on the statute-book an unrepealed section of an Act passed in 1742 imposing duties on spirituous liquors and on on-licences to retail them which contains an exemption in favour of chemists (see (6) in the evidence quoted earlier in this article). A distinction of this kind which has survived for so long the searching process of changes in our licensing law is surely one which ought not to be lightly put aside even if a change in administrative practice could be considered opportune at a time like the present. The tendency, which cannot be avoided, to consider the law as to liquor licences by the Excise with the law as to liquor licences granted by magistrates justifies something being said on justices' licences for the sale of spirit mixtures. A justices' licence is required (with some unimportant exceptions not here in point) for the sale by retail of intoxicating liquor, which is defined as meaning not only spirits but "spirituous liquor which cannot, according to the law for the time being in force, be legally sold without an excise licence." There then follows an express exemption from the requirement of a licence which has a direct bearing on the subject we are considering. It is provided that a justices' licence need not be held for "the sale of medicated spirits or spirits made up in medicine and sold by medical practitioners or chemists and druggists." The Act, it may be said, nowhere defines what are medicated spirits; but it would be safe to assume that our courts, if called upon to define what such spirits are, would treat with great respect the opinion of the Commissioners of Customs and Excise on the point. Thus, although the official letter expressly refers to an exemption only from the requirement of an excise licence, this might carry with it by implication exemption from liability to a justices' licence also, and so be a good defence to police proceedings for selling spirits by retail without a licence. The importance of the change in the view of the Commissioners may therefore have been much greater than was contemplated when the letter was drafted. If so, a case for the reconsideration of the matter by them would be greatly strengthened.

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### The Two Hundredth "Script"

We congratulate "The Script" on attaining its two hundredth issue, and not less cordially on its possession of an editorial staff comprising Mr. Herbert Skinner, Mr. John Humphrey and Mr. Thomas Marns. So far as we can trace, "The Script" was first mentioned in our columns in October 1913, when its monthly issue consisted of only eight pages: it has by this time doubled in size without any dilution of its vivacity and alertness. To adopt an expression familiar in our "Progress of Pharmacy" section, its mental processes function *in vivo*, not *in vitro*; as we glance through its always welcome contents, we find ourselves "except in opinion not disagreeing"—and the agreement sometimes extends to the opinion also. We trust that "The Script" may long continue to hold its unique place in the pharmaceutical order of things.



### Reduced Trade in Oilseeds

THERE has undoubtedly been a serious shrinkage of operations in the British oilseed-crushing industry so far this year, on the top of the decline already recorded last year, which chiefly affected linseed crushers. What between generally adverse economic conditions and the poorness of world trade, besides severe Continental competition, it is to be feared that the current year may prove to be one of the worst on record for the British industry. The position of linseed crushers has been particularly handicapped by the inflated cost of seed, consequent upon the severe deficit in this season's Argentine crop. The latter factor was emphasised in our columns last year and again on April 12 (p. 458), when it was pointed out that there would be a shortage of about 33 per cent. compared with the previous full crop. Owing to the keen competition of other crushing countries, including the United States, our receipts in 1929 from the Argentine already experienced a shrinkage of over 100,000 tons, although the net deficit from all sources amounted to about 63,000 tons, chiefly due to the good increase noted from India. Following this, a far more precarious state of affairs has confronted home crushers, as indicated by another loss in our imports for the first four months of this year of over 65,000 tons from the various sources, while the quantities accounted for in April were extremely small (only 9,726 tons), which is certainly the lowest record in any month for a long time past. There has been a deficit this year in the world's shipments to about mid-May of over 53 per cent., compared with the same period last year, the total amounting to over 750,000 tons, of which practically one-third went to the United States, entirely from the River Plate. In the event of trade improving over the remainder of this year, the shortage of seed will probably be more acutely felt, unless the next North American crops give a much better yield over the autumn under the increased areas under cultivation. The outlet for linseed-oil has been obviously checked by its inevitably inflated value, with a high premium exacted throughout for spot delivery, but, at the same time, the deficit in our imports of raw material has had to be made up to a large extent by the importation of abnormally heavy quantities of Continental oil. The total U.K. imports of linseed-oil for the four months to the end of April were as much as 19,400 tons, or nearly four times the exports of home-made oil, which is a most unsatisfactory feature, considering that under normal conditions this country is usually an exporter on balance. The figures given below of our imports of raw materials covering the first four months of the year, with comparisons, are very striking:—

U.K. Imports (tons)	May 1929	May 1930	Jan.-May 1929	Jan.-May 1930	Dec. or Inc.
Linseed ..	27,989	16,042	152,218	75,013	- 77,205
Cottonseed ..	52,145	52,273	268,337	251,700	- 16,637
Soya beans ..	7,630	3,000	111,270	66,880	- 44,390
Castor seed ..	4,811	5,332	12,770	15,694	+ 2,924
Rape seed ..	3,578	586	15,557	2,405	- 13,152
Ground nuts..	15,223	12,804	74,200	63,684	- 10,516
Copra ..	4,091	7,719	36,430	34,682	- 1,748
Palm kernels..	3,334	15,691	65,205	51,002	- 14,203
Totals ..	118,801	113,447	735,987	561,060	- 174,927

It will be seen from these figures that the most serious item is the slump in linseed incomings, which for May only amounted to 16,042 tons, while the total for the five months at 75,013 tons indicates a loss of 77,205 tons (equal to 52½ per cent.) against January-May last year. In all raw materials tabulated above, the receipts for May totalled 113,447 tons, comparing with 118,801 tons a year before. Taking the returns for the five months amounting to

561,060 tons, this compares with 735,987 tons in 1929—a decrease of 22½ per cent., or 174,927 tons, which, therefore, means that crushing operations at the mills have been seriously attenuated. The decrease in cottonseed arrivals at 251,700 tons represents 16,637 tons, which is largely accounted for by the reduced Egyptian crop, the bulk of which, however, came to this country. A more important decrease is shown in soya beans of 44,390 tons to 66,880 tons for the five months. The renewed marked setback in British trade in soya beans is the more regrettable in view of the considerable decline in the price. This is largely a reflex of keen foreign competition, while our imports of soya bean-oil, similar to linseed-oil, have been more than doubled so far this year. This competition in practically all vegetable oils under a poor home trade, is the chief reason for the difficulties of home crushers and the restrictions imposed on them in their buying of raw materials.

### Quasi-Criminal Statistics

THE Home Office statistics relating to crime and criminal proceedings are published annually—a year in arrears, which is quite intelligible, seeing the multiplicity of detailed information that has to be tabulated. None the less, these returns often provide material that is of interest to the pharmacist. The volume of "Criminal Statistics" for 1928, recently available, deals not only with criminal, but also with quasi-criminal, matters—that is to say, with proceedings in police courts which follow criminal procedure, though they do not relate to "crime" in the strict sense. One item is of special interest at the present time. Dealing with prosecutions under the Dangerous Drugs Acts and Regulations, the report says (p. 52):—

"The first Dangerous Drugs Act was not passed until 1920. The number of persons proceeded against in 1928 in Great Britain (i.e., including Scotland as well as England and Wales) was only 62, although the law on the subject is duly enforced. Nothing has occurred in this country to suggest the same close and far-reaching connection between criminality and the use of drugs that is suggested occasionally in the literature of some other countries."

How in the face of such an admission as that the Home Office can take further steps in the direction of setting up the new official organisation for controlling the sale of poisons outlined in the report of the Pharmacy and Poisons Committee we do not know. It is to be hoped that any attempt to palm off a Bill upon Parliament such as has been suggested will be met by referring every member of Parliament to this remarkable expression of Home Office opinion. It is of further interest to note ("Criminal Statistics," p. 97) that so very serious were the charges brought under the Dangerous Drugs Acts during the year 1928 that only one person in the whole of Great Britain out of the sixty-two prosecuted under those Acts was committed for trial in a higher court than that of the local magistrates! So we see how little justification there is for the hustle and bustle to set up what is in effect a new Government department to control the sale of poisons (not merely dangerous substances but all substances that are "poisonous"). It is of interest to note, from the same statistical report, that the number of prosecutions under the Adulteration Acts during the year 1928 was 1,299 below the annual average for the years 1910 to 1914. No explanation of this decline is given, nor is there any distinction between prosecutions for alleged offences in regard to the sale of drugs and those relating to food adulteration. It would, however, be safe to say that the greater part of the decline is attributable to a steady falling off in the number of prosecutions relating to the sale of drugs—despite the fact that the authorities have been very busy since the war in checking the enormous number of panel prescriptions that are being dispensed. We hope the day will come when no retailer will be prosecuted for alleged adulteration save with the sanction of trade experts.

# Book-Keeping for Chemists

By S. Howard Withey, F.C.I., etc.

## VIII.—Drafting the Profit-and-Loss Account

HAVING ascertained the amount of gross profit made during the year or other accounting period by drawing up a trading account showing, on the debit side, the value of the stock of drugs, patents, etc., at the commencement of the period and the net total of the purchases during the period, and on the credit side, the net total of the cash and credit sales and the value of the closing stock, the chemist can proceed to adjust the various nominal or expenses accounts.

When balancing his books as on December 31, 1929, a chemist, we will suppose, examines the wages account kept in the impersonal ledger, and discovers that the last wages payment was made on Friday, December 27, covering the week ended December 28. In order that the final profit-and-loss account shall include the full wages charge for the year, it will be clear that an extra two days' wages should be debited to the wages account before the balance of the latter is transferred, and this amount will be ascertained by calculating one-third of the wages actually paid out for the week ended January 4, 1930. This proportion will be entered as the last item on the debit side of wages account, reading: "December 31. To reserve," and after transferring the balance of the account to profit and loss, the reserve should be brought down on the credit side of the account to commence the next period, with the opening date and the words "By Reserve." In the same way, proportions of taxes, interest, rent and any other expenses owing by the chemist on the last day of the financial period should be treated as nominal account balances, so that the proper charge can be made against the profits. The following is a specimen list of accrued expenses made out as on December 31, 1929:—

	£	s.	d.
Wages, $\frac{1}{3}$ of £12 15s. 0d. .. .. .	4	5	0
Carriage, L.M.S. December account .. .. .	2	6	8
Travelling expenses, S. Ryland .. .. .	2	11	3
Bad and doubtful debts .. .. .	9	17	6
Salaries, Miss Morton (December) .. .. .	10	0	0
Total .. .. .	£29	0	5

When drafting the balance sheet, this total of £29 0s. 5d. would have to be included on the liabilities side. Amounts due to the chemist on the balancing date should also be ascertained and a list of them made out, the individual items being inserted as the last entry on the credit side of each particular nominal account, and

brought down on the debit side to commence the following period. The following are specimen entries:—

	£	s.	d.
Advertising $\frac{1}{3}$ of £250 paid for twelve months ending June 1930 .. .. .	125	0	0
Rent of Walsall shop, paid in advance .. .. .	15	0	0
Interest receivable, less tax .. .. .	10	16	0
Discounts receivable .. .. .	34	2	6
Total .. .. .	£184	18	6

	Dr.			Cr.		
	£	s.	d.	£	s.	d.
Cash in hand .. .. .	116	2	8			
Cash at bank .. .. .	328	17	4			
Sales ledger balances .. .. .	105	4	3			
Purchases, ledger balances .. .. .				217	18	1
Capital .. .. .				3,400	0	0
Drawings .. .. .	400	0	0			
Stock, December 31, 1929 .. .. .	785	17	11			
Machines and implements .. .. .	150	0	0			
Trade utensils .. .. .	125	10	0			
Leasehold premises .. .. .	1,000	0	0			
Furniture, fixtures, and fittings .. .. .	217	18	11			
Motor transport .. .. .	290	0	0			
Purchases .. .. .	3,773	18	11			
Returns outwards .. .. .				175	19	2
Sales .. .. .				5,011	1	2
Returns inwards .. .. .	142	3	4			
Wages .. .. .	372	18	9			
Salaries .. .. .	200	0	0			
Rent, rates, and taxes .. .. .	289	17	3			
Gas, water, and insurance .. .. .	94	8	2			
Advertising and stationery .. .. .	181	0	5			
Travelling expenses and commission .. .. .	100	6	8			
Carriage and cartage .. .. .	40	12	3			
Repairs and renewals .. .. .	81	18	6			
Depreciation .. .. .	217	10	0			
Bad debts .. .. .	12	4	3			
Discounts .. .. .				262	18	5
Postages, stamps, etc. .. .. .	33	16	6			
Interest .. .. .				33	11	5
Sundry shop expenses .. .. .	41	2	2			
Total .. .. .	£9,101	8	3	£9,101	8	3

Dr.

TRADING AND PROFIT-AND-LOSS ACCOUNT YEAR ENDED DECEMBER 31, 1929

Cr.

	£	s.	d.		£	s.	d.
To Stock on hand at December 31, 1928 .. .. .	785	17	11	By Sales .. .. .	£5,011	1	2
" Purchases .. .. .	£3,773	18	11	" Less Returns .. .. .	142	3	4
" Less Returns .. .. .	175	19	2		4,868	17	10
	3,597	19	9				
	£4,383	17	8	" Stock on hand at December 31, 1929 .. .. .	800	10	0
" Balance, being gross profit carried down .. .. .	1,285	10	2				
	£5,669	7	10		£5,669	7	10
To Wages .. .. .	377	3	9	By Balance, being gross profit brought down .. .. .	1,285	10	2
" Salaries .. .. .	210	0	0	" Discounts .. .. .	297	0	11
" Rent, rates, taxes .. .. .	274	17	3	" Interest .. .. .	44	7	5
" Gas, water, and insurance .. .. .	94	8	2				
" Advertising and stationery .. .. .	56	0	5				
" Travelling expenses, etc. .. .. .	102	17	11				
" Carriage and cartage .. .. .	42	18	11				
" Repairs and renewals .. .. .	81	18	6				
" Depreciation .. .. .	217	10	0				
" Bad debts .. .. .	22	1	9				
" Postages, stamps, etc. .. .. .	33	16	6				
" Sundry shop expenses .. .. .	41	2	2				
	£1,554	15	4				
" Balance, being net profit for the year .. .. .	72	3	2				
	£1,626	18	6		£1,626	18	6



It will be observed that the amount of gross profit is shown, this figure being carried down and the various expenses enumerated against it on the other side of the amount.

As soon as the balance of each nominal or expenses account has been transferred, a summary of the remaining items enumerated on the trial balance should be made out, including the total of the accrued expenses, which should be shown as a credit balance, and the total of the accrued assets, which will be a debit balance. As in the case of the trial balance, the debit and credit totals of this summary will correspond with each other, providing no errors have been made in the preparation of the final account, and the advantage of tabulating the figures in this way is that the drafting of the balance sheet will be greatly facilitated. The summary would appear in the following form:—

	Dr.			Cr.		
	£	s.	d.	£	s.	d.
Cash in hand .. ..	116	2	8			
Cash at bank .. ..	328	17	4			
Sales, ledger balances	105	4	3			
Purchases, ledger balances				217	18	1
Capital .. ..				3,400	0	0
Drawings .. ..	400	0	0			
Stock on hand, December 31, 1929 ..	800	10	0			
Machines and implements .. ..	150	0	0			
Trade utensils .. ..	125	10	0			
Leasehold premises ..	1,000	0	0			
Furniture, fixtures, and fittings .. ..	217	18	11			
Motor transport .. ..	290	0	0			
Apportionments and reserves .. ..	184	18	6	29	0	5
Balance of trading and profit - and - loss account .. ..				72	3	2
	£3,719	1	8	£3,719	1	8

The amount of net profit shown in the certified accounts of a chemist in business on his own account may be transferred direct to the credit side of his capital account and retained as additional working capital, or posted to the credit side of a separate current or drawings account to be withdrawn for private purposes as and when required. In the case of a partnership of two or more persons, however, the amount of net profit will have to be split up and each partner credited with his proper share in accordance with the deed or other partnership agreement. On the other hand, if the concern is trading as a limited liability company, the profit should be transferred to the credit side of a special "Appropriation of Profit Account," on the debit side of which will be shown the total of the dividends paid to the shareholders and the amount, if any, transferred to reserve. Unless certain statutory requirements are fulfilled, the capital of a company cannot be altered and must, therefore, not be merged with figures representing profits or losses on trading.

**GLYCERIN FROM IRELAND.**—During last year 4,468 cwt. of glycerin, valued at £7,585, was exported to Great Britain from the Irish Free State, compared with only 1,340 cwt. (£3,140) in 1928.

**FUNCTIONS OF HOSPITAL PHARMACISTS.**—"A closer acquaintance and co-operation between the hospital pharmacist and the members of the attending staff will be of mutual profit. The pharmacist will learn the problems which the staff has to meet, and the physicians can learn much concerning the composition and origin of new as well as of old remedies. In many hospitals the staff has failed to avail itself of the store of pharmaceutical information which may be had from the pharmacist for the asking, and the pharmacist has not taken as large a place in hospital conferences as he should. His function should not cease with the supplying of drugs called for on prescription and the detecting of inadvertent errors of dosage, but properly should be extended in an informative and advisory capacity. . . ."—E. E. Irons, M.D., in "The Journal of the American Medical Association."

## Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts.

### Local Reports

#### ENGLAND AND WALES

**Durham.**—It was reported to the Durham County Insurance Committee recently that during the past year sixty-seven samples of drugs had been taken for testing, and in fifty-eight cases no action was taken. In the remaining cases three chemists had been censured, and in two cases it was decided that certain sums of money should be withheld. The total cost of prescriptions for the past ten months was £32,384 8s. 7d.

**Hertfordshire.**—At a recent meeting of the Insurance Committee reference was made to a case of inaccurate dispensing. The chairman said that the chemist had been misled by a bottle, which, though to all appearances an 8-oz. bottle, was 8 drachms short. There was no deficiency in the amount of the drugs. It was decided that the chemist should be admonished.

**Middlesex.**—The bi-monthly meeting of the Middlesex Insurance Committee was held recently. The Finance and General Purposes Subcommittee reported the payment of accounts amounting to £7,417 and £7,450, including sums of £6,263 and £6,415 to chemists. The Pharmaceutical Service Subcommittee recommended that three firms of chemists be censured for breaches of the regulations. In another case, in which a chemist refused to dispense a prescription, the Subcommittee stated that he was not justified in doing so, but they disapproved of the attitude which the insured person adopted towards the chemist. The recommendations were adopted.

**Norwich.**—It was reported to the Norwich Insurance Committee, at a meeting held recently, that under the scheme for testing drugs and appliances supplied to insured persons thirteen samples were taken during the past year. Of these ten were mixtures and three appliances. It was satisfactory to report that in no case during 1929 was it found necessary to refer a certificate to the Pharmaceutical Service Subcommittee.

**Sheffield.**—At a recent meeting of the Sheffield Insurance Committee a report of the Joint Services Subcommittee on two test prescriptions was adopted. On the report of the city analyst the first prescription showed a deficiency of 15.1 per cent. of potassium bromide; the firm of chemists submitted the remainder of the sample to an independent analyst, who reported a deficiency of 8.7 per cent. The manager alleged that the clerk, who took the sample, spilt a portion. This was denied. An assistant from the city analyst said that had the bottle been full it would still show a deficiency of 12.7 per cent. The managing director gave an explanation that the mixture had been strained through cotton wool and some of the undissolved potassium bromide had been lost. The Subcommittee recommended that the sum of £1 is. be withheld from the chemist. The second case was an omission of chloroform water from a mixture. The report recommended that the chemist be cautioned to use greater care in the future. Payments to chemists for the month amounted to £2,619.

**Smethwick.**—At a meeting of the Smethwick Insurance Committee, held recently, the clerk reported that approximately 4,000 prescriptions issued during the months of December and January last had been scrutinised. As a result sixty-one queries had arisen, which were being investigated. The following statistics relating to prescribing of practitioners during the year 1929 were received:—Number of prescriptions, 183,057; cost of ingredients, £2,513 5s. 8d.; cost of dispensing fees, £3,389 19s. 5d.; average cost per prescription, 7.7d.; average of prescriptions per insured person, 5.13d. During the quarter ended December 31 seventy-two prescriptions for insulin were issued at a cost of £31 4s. 5d., and eleven prescriptions for vaccines at a cost of £4 5s. 3d.

# French Foreign Trade

STATISTICS relating to French foreign trade recently published by the Minister of Finance give particulars of French imports and exports during the year 1929. Goods actually imported into France, i.e., goods cleared through the French customs for consumption in that country during the year 1929 were valued at 58,284,624,000 francs, compared to 53,435,552,000 francs in 1928, an increase in 1929 of 4,849,072,000 francs. The aggregate weight of imports has increased from 49,339,407 metric tons in 1928 to 59,447,195 tons in 1929. Exports of French goods have decreased in weight and decreased in value. In 1929, 39,888,775 tons were exported, valued at 50,072,348,000 francs, while in 1928, 41,125,930 tons were exported, valued at 51,374,729,000 francs, the difference being 1,302,318,000 francs and 1,237,155 tons respectively. Compared to figures for 1913, imports show an increase

of 15,226,809 tons and exports an increase of 17,814,262 tons in 1929. Regarding trade with Great Britain imports in 1929 were valued at 5,829,577,000 francs, against 5,477,485,000 francs in 1928. Exports show a decrease, being valued at 7,566,539,000 francs in 1929, and 8,165,228,000 francs in 1928. The following table shows the amounts in tons, unless otherwise stated, of imports and exports of interest to the drug trade. Under the heading "French exports" are given amounts of goods actually manufactured in France, or of goods of foreign or colonial origin, which, by reason of their having been cleared through the French Customs in the ordinary way and placed on the home market, have acquired the designation of French products.

	Total Imports		Total Exports		French Exports	
	1928	1929	1928	1929	1928	1929
	Tons	Tons	Tons	Tons	Tons	Tons
Acetone .. .. .	2,300	2,098	48	60	48	60
Acetic acid .. .. .	165	8	86	103	86	103
Acetylmorphine and salts (kg.) .. .. .	955	230	5,512	3,352	5,512	3,352
Acetylsalicylic acid (kg.) .. .. .	4,700	15,500	140,200	119,800	140,200	119,800
Adrenalin and salts (kg.) .. .. .	5	1	5,387	776	5,387	776
Aloes (kg.) .. .. .	57,100	68,700	11,000	11,500	2,800	1,400
Amyl acetate (kg.) .. .. .	1,400	3,100	6,800	1,400	6,800	1,400
Amyl alcohol (kg.) .. .. .	1,000	4,600	36,800	45,700	36,800	45,700
Antimony oxide .. .. .	50	51	572	488	572	488
Anthraquinone .. .. .	41	153	—	1	—	1
Arsenic sulphide .. .. .	47	17	53	39	44	32
Arsenious acid .. .. .	138	176	2,503	2,460	2,503	2,460
Atropin (kg.) .. .. .	3	2	—	1	—	1
Barium carbonate, ppt. .. .. .	2,514	2,084	30	71	30	71
Barium sulphate:						
Precipitated .. .. .	689	758	203	195	203	195
Pure .. .. .	51	115	300	159	300	159
Barium sulphide .. .. .	39	48	11	9	11	9
Benzaldehyde (kg.) .. .. .	20,700	15,900	600	400	600	400
Benzoic acid (kg.) .. .. .	2,100	10,300	100	200	100	200
Bismuth—nitrate, salicylate (kg.) .. .. .	300	1,000	13,400	23,300	13,400	23,300
Borax, refined .. .. .	2,071	1,856	1,016	690	1,016	690
Boric acid .. .. .	551	446	1,318	2,407	1,318	2,407
Bromides (ammonium, barium, calcium, potassium, sodium, strontium) (kg.) .. .. .	6,100	6,900	14,200	56,300	14,200	56,300
Bromine (kg.) .. .. .	500	5,000	167	347	167	347
Butyl acetate .. .. .	359	524	4	3	4	3
Butyl alcohol .. .. .	320	325	2	10	2	10
Caffeine (kg.) .. .. .	5,300	18,100	600	200	600	200
Calcium carbonate, ppt. .. .. .	2,721	1,884	287	395	287	395
Calcium chloride .. .. .	7,462	8,533	261	178	258	178
Calcium citrate .. .. .	781	928	—	—	—	—
Camphor, natural:						
Crude (kg.) .. .. .	2,945	1,210	1,400	1,100	900	300
Refined (kg.) .. .. .	1,153	977	17,400	9,800	14,600	8,100
Artificial or synthetic (kg.) .. .. .	16,276	22,769	3,300	105,300	3,300	105,300
Cantharides, civet, castorum, ambergris (kg.) .. .. .	9,900	11,800	100	1,600	100	1,600
Cardamoms (kg.) .. .. .	8,400	55,700	4,100	15,100	—	—
Carbon disulphide .. .. .	1,869	1,793	1,457	656	1,457	656
Carbon tetrachloride .. .. .	169	121	51	4	51	4
Cassia (kg.) .. .. .	8,400	9,400	400	—	—	—
Caustic potash .. .. .	382	227	5,175	4,552	5,175	4,552
Caustic soda .. .. .	259	649	36,801	37,385	36,801	37,311
Chloroform (kg.) .. .. .	1,900	6,600	14,800	22,200	14,800	22,200
Chromic acid (kg.) .. .. .	31,200	50,500	100	1,700	100	1,700
Cinchona bark .. .. .	1,201	1,359	23	13	23	13
Cinnamon .. .. .	446	288	207	211	—	—
Citric acid (cryst.) .. .. .	494	638	244	113	173	93
Creosote (kg.) .. .. .	2,000	200	8,900	24,600	8,900	24,600
Cloves .. .. .	1,159	170	755	438	6	7
Cocaine—crude (kg.) .. .. .	1,428	273	9	3	9	3
Cocaine—pure and salts (kg.) .. .. .	228	175	443	573	443	573
Cochineal .. .. .	130	111	39	29	14	6
Codeine (kg.) .. .. .	2,153	1,088	7	166	7	166
Copaiba (kg.) .. .. .	24,300	12,000	3,300	3,900	1,900	300
Digitalein (kg.) .. .. .	12	2	2	118	2	118
Emetine and salts (kg.) .. .. .	119	44	75	7	75	7
Ether .. .. .	26	8	54	61	54	61
Ethyl acetate .. .. .	370	251	9	4	9	4
Ethylmorphine and salts (kg.) .. .. .	171	100	6	5	6	5



	Total Imports		Total Exports		French Exports	
	1928	1929	1928	1929	1928	1929
	Tons	Tons	Tons	Tons	Tons	Tons
Formic acid .. .. .	348	348	92	294	92	294
Gallic acid (kg.) .. .	6,200	3,800	700	900	700	900
Galls .. .. .	10,722	8,849	71	92	22	9
Glycerin—crude .. .	537	310	3,822	4,554	3,822	4,554
Glycerin—distilled ..	356	442	638	361	443	136
Guaiacol (kg.) .. .	—	10,200	11,900	13,400	11,900	13,400
Guaiacol—salts and derivatives (kg.) ..	9,800	5,200	9,000	32,300	9,000	32,300
Herbs, leaves, flowers—medicinal .. .	3,560	4,056	2,839	3,990	2,681	3,724
Hexamethylene (kg.) ..	52	74	1,100	500	1,100	500
Iodides (ammonium, lithium, potassium, sodium, strontium) (kg.) ..	600	900	16,700	26,600	12,700	11,600
Iodine—crude (kg.) .. .	14,300	76,100	700	700	700	700
Iodine—resublimed (kg.) ..	—	—	45,500	9,000	42,000	1,000
Hydroquinone (kg.) .. .	200	1,300	45,800	38,800	45,800	38,800
Lactic acid:						
Industrial (kg.) .. .	27,600	56,000				
Pure (kg.) .. .	8,200	9,800	44,800	{23,600}	44,800	{23,600}
Lead acetate .. .	228	108	8	3	8	3
Leeches, 1,000 .. .	374	529	314	290	314	290
Mace (kg.) .. .	6,300	6,100	1,200	700	400	—
Magnesia:						
Calcined .. .	545	1,794	24	9	24	9
Pure .. .	187	187	26	16	26	16
Magnesium carbonate .. .	846	1,004	107	110	102	105
Magnesium sulphate:						
Pure .. .	460	753	30	40	30	40
Ordinary .. .	3,180	4,778	13	21	13	21
Manna (kg.) .. .	35,700	18,800	2,100	1,900	1,900	1,100
Medicines:						
Compound (not elsewhere enumerated)	357	392	17,395	19,993	17,364	19,963
Menthol (kg.) .. .	24,100	24,200	21,200	32,000	20,700	31,900
Mercury .. .	384	118	63	17	3	2
Mercury, chlorides and oxides .. .	66	50	1	6	1	6
Methyl salicylates (kg.) .. .	3,900	1,700	39,700	43,300	39,700	43,300
Molybdic acid and molybdates (kg.) ..	4,000	3,700	1,200	1,700	1,200	1,700
Morphine and salts (kg.) .. .	2,060	607	2,187	5,001	2,187	5,001
Musk (kg.) .. .	895	1,421	9	42	9	42
Naphthol benzoate and salicylate (kg.) ..	700	1,800	—	400	—	400
Nicotine .. .	44	43	—	8	—	8
Oils, citrus (kg.) .. .	160,158	258,556	34,202	27,316	33,792	26,318
Oil, cod-liver .. .	4,088	4,368	307	198	298	197
Oil, geranium (kg.) .. .	24,039	15,027	7,834	25,321	7,401	24,674
Oil, rose (kg.) .. .	2,230	2,349	1,062	1,833	1,062	1,618
Oils, terpeneless (kg.) .. .	12,793	7,779	1,132	1,466	1,132	1,466
Oil, ylang-ylang (kg.) .. .	24,570	35,038	9,980	13,058	9,980	13,058
Oleic acid:						
Animal .. .	4,968	5,269	212	236	205	234
Vegetable .. .	4,748	3,091	687	813	268	623
Opium (kg.) .. .	223,300	110,400	21,700	11,200	1,200	1,000
Orange, lemon peel .. .	474	967	75	93	32	33
Oxalic acid .. .	617	560	13	26	13	26
Papaverine and salts (kg.) .. .	52	17	—	123	—	123
Pepper .. .	3,188	3,323	597	694	73	46
Indo-China .. .	2,976	3,156	—	—	—	—
Pepsin .. .	87	129	66	28	66	28
Perfumes, synthetic or artificial (kg.) ..	181,600	167,800	364,300	351,800	364,300	351,800
Phenacetin (kg.) .. .	800	7,000	57,000	78,200	57,000	78,200
Phosphoric acid (kg.) .. .	79,200	64,200	14,600	10,900	14,600	10,900
Phosphorus (kg.) .. .	27,700	31,800	296,600	307,800	296,600	307,800
Phenolphthalein (kg.) .. .	5,000	10,400	—	—	—	—
Pimento .. .	421	417	214	288	3	6
Potassium carbonate .. .	2,933	2,287	907	682	907	632
Potassium chromate and dichromate ..	791	694	10	9	10	9
Potassium ferricyanide (kg.) .. .	16,200	4,500	36,300	32,700	36,300	32,700
Potassium ferrocyanide (kg.) .. .	74,800	388,100	7,300	4,600	7,300	4,600
Potassium metabisulphite (kg.) .. .	900	6,300	89,200	128,700	87,300	128,700
Potassium oxalate .. .	54	56	—	—	—	—
Potassium permanganate .. .	56	50	—	—	—	—
Propyl alcohol .. .	11	10	21	23	21	23
Pyrogallol acid tech. (kg.) .. .	5,600	3,000	—	—	—	—
Sublimed (kg.) .. .	5,400	3,400	—	—	—	—
Quinine and salts (kg.) .. .	200	300	32,100	39,700	32,100	39,700
Quassine (kg.) .. .	7	6	—	—	—	—
Radium and its products (kg.) .. .	5	7	28	6	28	6
Resorcin .. .	—	—	25	61	25	61
Saffron (kg.) .. .	11,400	15,000	1,100	1,200	1,100	1,200
Salicylic acid (kg.) .. .	900	6,600	38,300	28,600	38,300	28,600
Salicylates (not elsewhere enumerated) (kg.) ..	3,900	175	41,700	34,100	41,700	34,100
Salol (kg.) .. .	600	200	10,800	20,000	10,800	20,000
Santonin (kg.) .. .	273	574	—	7	—	7
Soaps, ordinary .. .	3,764	3,866	66,885	66,530	66,885	66,529
Sodium bicarbonate .. .	37	28	7,382	6,735	7,382	6,735
Sodium chromate and dichromate .. .	2,376	2,313	24	49	24	49
Sodium formate (kg.) .. .	1,100	39,500	200	200	200	200
Sodium hyposulphite .. .	31	35	3,165	3,438	3,165	3,438
Sodium metasilphite .. .	65	51	40	205	40	205
Sodium nitrite .. .	1,663	608	1	2	1	2

	Total Imports		Total Exports		French Exports	
	1928	1929	1928	1929	1928	1929
	Tons	Tons	Tons	Tons	Tons	Tons
Sodium sulphide .. .. .	490	727	4,018	2,653	4,018	2,653
Sodium sulphite .. .. .	17	156	751	517	751	517
Sodium perborate .. .. .	117	131	222	304	222	304
Sodium peroxide (kg.) .. .	20,500	2,300	20,900	24,300	20,900	24,300
Sparteine and salts (kg.) ..	—	5	330	298	330	298
Spermaceti .. .. .	25	21	47	48	45	48
Stearic acid .. .. .	775	566	782	1,222	529	987
Strychnine and salts (kg.) ..	2,855	3,027	40	15	40	15
Sulphur ppt. .. .. .	11	13	105	625	105	625
Sulphur chloride .. .. .	357	319	—	—	—	—
Sulphurous acid .. .. .	21	179	958	970	958	970
Tannic acid .. .. .	110	135	107	68	107	68
Tartar emetic (kg.) .. .. .	300	500	8,100	5,000	8,100	5,000
Tartrates of potassium .. .	10,044	12,959	11,430	13,224	11,430	13,224
Tartaric acid .. .. .	682	902	1,392	1,093	1,318	1,075
Theobromine and salts (kg.) ..	800	12,300	800	300	800	300
Thymol (kg.) .. .. .	2,700	5,500	—	300	—	300
Turmeric .. .. .	254	320	166	147	63	47
Turpentine .. .. .	105	166	12,366	8,213	12,366	8,211
Urea .. .. .	3,180	1,483	20	21	20	21
Vanilla .. .. .	839	1,227	612	697	2	3
Vanillin (kg.) .. .. .	6,900	3,900	66,500	64,900	66,500	64,800
Veratrine (kg.) .. .. .	54	57	—	—	—	—
Waxes, carnauba, myrtle and others ..	1,055	913	69	42	25	14
Zinc carbonate (kg.) .. .. .	700	700	100	800	100	800
Zinc chloride .. .. .	121	212	656	748	656	748
Zinc oxide .. .. .	1,186	2,109	2,323	2,506	2,322	2,505
Zinc sulphate .. .. .	393	387	52	108	52	108

## Lime Products

THE annual Colonial report for 1928-29 on the Leeward Islands (H.M. Stationery Office) contains information on the production of limes and lime products, papain and bay oil in Antigua, Dominica and Montserrat.

### DOMINICA LIME CROPS

The report mentions that Dominica was visited by a hurricane on September 12, 1928, and that a considerable portion of the lime crop was destroyed; but, in spite of the hurricane, there is every indication that the financial condition of the Presidency tends to improve, chiefly due to the high prices for lime oils and other lime products. Dealing with the lime industry, the report states that the export figures for limes and lime products during the year 1928 show a falling off of 5,000 barrels when represented as fruit. This decrease is attributable to outbreaks of root disease and the hurricane. The Department of Agriculture has laid down large nurseries and is propagating budded and grafted lime trees to replace the seedling lime which is rapidly being destroyed by the ravages of root disease. It has been demonstrated that budded limes possess qualities superior to the seedling, one of which is immunity to most root troubles. High prices for lime products held throughout the year, and the closing prices for December were: Ripe limes, 15s. per barrel; green limes, 20s. per barrel; lime oils, 46s. per lb. for essential and 25s. per lb. for distilled.

Fifty gallons of concentrated juice represents 75 barrels of lime fruits; 7½ gallons of raw juice represents 1 barrel of lime fruits; 1 ton of citrate of lime is equivalent to 266 barrels of lime fruits; 1 ton of citric acid is equivalent to 400 barrels of lime fruits; 1 gallon of lime juice cordial represents 5½ barrels of lime fruits.

The exports of products of the lime industry during 1928 were as follows:—

Product	Quantity	Value
		£
Concentrated lime juice .. ..	90,731 gals.	20,726
Raw lime juice .. .. .	306,090 gals.	20,947
Lime juice cordial .. .. .	337 gals.	51
Fresh limes .. .. .	26,830 brls.	24,743
Pickled limes .. .. .	225 brls.	472
Essential oil (distilled) .. ..	32,174 lb.	37,192
Otto of limes (handpressed or écuelled) .. .. .	7,677 lb.	15,383
		£119,514

The export trade was remarkable for a continuation of the high prices realised for lime oils and green limes, which are mainly exported to the United States of America. Raw and concentrated juice is exported mainly to Great Britain.

### PAPAIN AND BAY OIL

On the Island of Montserrat the papain and bay leaf industries were not increased during 1928-29, on account of indifferent market prices of these commodities. The principal exports of the island's chief and minor industries for the past five years are given as follows:—

	1924	1925	1926	1927	1928
Lime products, raw juice .. gals.	41,216	7,057	34,594	34,047	33,906
Value ..	£3,118	£565	£2,086	£1,720	£1,803
Papain .. lbs.	599	541	1,696	1,243	550
Value ..	£424	£379	£1,106	£877	£377
Bay oil .. gals.	141	123	104	67	145
Value ..	£705	£615	£325	£53	£165

In 1928 concentrated lime juice exported was 1,485 gallons, valued at £326, and écuelled and distilled lime oil 1,283 lb., valued at £1,669. The comparative statement of imports and exports for the past three years shows the trend of trade:—

Destination	Bay oil		Lime juice		Papain	
	Gals.	Value	Gals.	Value	Lb.	Value
United Kingdom :						
1926 ..	152	£309	31,184	£2,085	—	—
1927 ..	56	£30	21,551	£800	500	£17
1928 ..	1,100	£145	15,328	£560	—	—
Canada :						
1926 ..	—	—	—	—	—	—
1927 ..	—	—	11,619	£862	—	—
1928 ..	—	—	16,901	£1,164	—	—
United States :						
1926 ..	—	—	—	—	—	—
1927 ..	1	3	—	—	—	—
1928 ..	—	—	1,135	200	—	—
Other countries :						
1926 ..	160	£325	31,184	£2,085	1,696	£1,106
1927 ..	67	£50	33,697	£1,690	500	£17
1928 ..	1,100	£156	35,391	£2,123	224	£25

PROHIBITION OF IMPORTATION OF MEDICINES IN BULK IN ARGENTINA.—It is reported that a regulation issued by the department of hygiene of the Argentine Government prohibits the importation of medicines in bulk. This regulation is to become effective June 21, 1930.



## Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

28 Essex Street, W.C.2, June 19

THE Mincing Lane produce markets were somewhat more active this week in certain directions, partly due to the resumption of the usual auctions, but the general outlook is much about the same as before. After being more active, sugar, of which large quantities were sold from Cuba, has relapsed into a dull and easier condition. Plantation rubber steadied somewhat at a little over 6d. per lb. after dropping under that figure on a heavy increase in the home stocks. In crude drugs the trend of values still continues downwards owing to the demand being for current requirements only. Senega has been sold at somewhat cheaper rates. Myrrh is firm, the demand for export having improved; ergot, balsam tolu and colocynth are cheaper. Curaçao aloes continue firm. Among aromatic seeds, both coriander and fenugreek to arrive have moved in buyers' favour. Shellac is lower. In the essential oils group, star anise is cheaper, while cassia is the turn better. The Sicilian citrus oils have again eased in value. Japanese peppermint oil is also easier. Business in pharmaceutical chemicals continues disappointing, and the convention prices for a number of products are being discounted. Citric and tartaric acids and cream of tartar continue weak and neglected. B.P. tannic acid is slightly easier. Among the industrial chemicals, the recent depression has rendered a number of quoted prices easier. Formaldehyde has declined by about £2 per ton, while ammonium chloride and sodium acetate are easier. Sal ammoniac is inclined to weaken, and copper sulphate is lower. Among the fixed oils, continued dull markets are apparent. Palm oils are again cheaper on a neglected market. Cotton, groundnut and rape are also easier. Linseed is about level on the week, while American turpentine on the spot is dearer, helped by a good trade demand, but prices for the second half of the year are easier.

Higher	Firmer	Easier	Lower
Turpentine (spot)	Cassia oil Pimento	Ammon. chlor. Balsam tolu Bergamot oil Coriander seed (c.i.f.) Cotton oils Cream of tartar Ground nut oil Lemon oil Naphthas, solvent Ipecacuanha Menthol	Anise oil, star Araroba Cascara sagrada Copper sulphate Cresylic acid Ergot Fenugreek seed (c.i.f.) Formaldehyde Gum acacia (spot and forward) Palm oils Shellac Wood oil

### Cablegram

BERGEN, June 18.—The catch of cod since the opening of the season now amounts to 61,000,000, against 78,235,000 at the same date last year. The yield of steam-refined cod-liver oil is 77,400 hectol., against 90,546 hectol. at the same date last year. The market is quiet and unchanged.

### Crude Drugs, etc.

ALOES remain firm, Curaçao good palish livers being scarce and dear at 135s., and other grades offer at from 125s. down to 115s. for manufacturing. To arrive t.q. quality is offered at 108s. c.i.f. Cape is well maintained, fine bright hard offering at 41s. 6d. and good seconds at 39s. 6d.

The exports from the Union of South Africa during January amounted to 35,018 lb. (£295), against 214,514 lb. (£890) in January 1929.

ANTIMONY.—There has been no improvement in the demand for Chinese refined, which is still hesitating, in

spite of the fact that there is some uncertainty as regards shipments due to rumours of handicaps to transport. Holders on the spot ask £26 10s. to £27, delivered warehouse. English high-grade is still £46 to £46 10s., and ordinary brands range down to £40. Terms for shipment from China are at around £22 15s. c.i.f. Chinese crude on the spot is nominally £21 10s. to £22, and Chinese white oxide is quoted £31 per ton.

ARARоба shows a decline in price, quotations coming very favourably from Brazil at 1s. 8½d. to 1s. 9d. per lb. (basis 50 per cent. chrysarobin).

ARECA.—Good sound Ceylon is quoted at 42s. 6d. per cwt. on the spot.

ASAFETIDA.—Stocks are now more restricted, and as a result the tendency is firmer. Fine selected almonds on the spot are quoted at £6 10s. to £7 per cwt., down to good ordinary at £5 15s.

BALSAMS.—Tolu is easier, with sellers of good quality offering at about 3s. 7d. per lb., and slightly drossy at 3s. 6d. B.P. Maranham *Copaiba* is quoted at 2s. 5d. per lb.

BUCHU.—The exports from the Union of South Africa during January 1930 were *nil*, against 20,752 lb. (£786) in January 1929.

CADMIUM.—There has been a further easier tendency under the continuation of liberal supplies in the face of a limited demand. Imports have been more disposed to make concessions on the spot and terms range from 3s. 7d. to 3s. 9d. for fair-sized lots. Forward contracts for good quantities can be arranged at below the lower figure.

CALABAR BEANS.—In consequence of a slow demand stocks have accumulated to about two tons: 43s. 9d. c.i.f. ex Hamburg is quoted.

CAMPHOR (REFINED).—Japanese slabs are quoted at 2s. 3½d. per lb., ¼-oz. tablets at 2s. 9½d., and flowers at 2s. 6d. per lb. on the spot.

CASOARA SAGRADA.—Prices have eased of late, with two-year-old peel offering at 68s., three-year-old at 70s., and four to five-year-old at 72s. 6d. on the spot. Oregon shippers are over here and are offering at greatly reduced prices c.i.f. new crop, 46s. 6d. to 47s. per cwt., but no active business has been done.

CHAMOMILES.—Belgians have been buying back on this market at from 205s. to 207s. 6d. per cwt. for last season's crop.

CLOVES.—Zanzibar are quiet and unchanged on the spot at 11½d., with sellers of June-July shipment at 11½d., and August-October at 11d. c.i.f.

The landings in London of Zanzibar during the week ended June 14 were *nil* and the deliveries 24, leaving a stock of 1,439, against 1,620 in 1929 and 10,103 bales in 1928. The landings in London from January 1 to June 14 have been 5,845, against 4,070 in 1929, and the deliveries 4,404, against 4,837 in 1929.

COCHINEAL.—The exports of cochineal from the Canary Islands through the port of Las Palmas during 1929 amounted to 369 metric tons, and exceeded the figures for 1923 by almost 50 per cent. France was the destination of 70 per cent.; England, 11; the United States, 9; and Germany, 8 per cent. of the total exported.

COD-LIVER OIL is quiet. The Finmarken fishing now being finished, the total deficiency for last season's production is definitely known as 13,600 hectolitres. It is expected that more interest will be shown, especially as most consumers have only covered a portion of their requirements up to date.

COLOCYNTH meets with a small demand and shippers indicate that they are unable to send further consignments at the present low prices. Syrian white pulped can be had at 1s. 2d. and apple at from 7½d. to 10d. as to colour.

EPHEDRA HERB.—The "Calchas," from Taku Bar, has brought 150 bales to London.

ERGOT is offered at cheaper prices, with Russian quoted on the spot at from 9½d. to 10d. per lb. and in not less than one-ton lots. Hamburg quoted 9½d. c.i.f. for prompt shipment. Spanish and/or Portuguese can be had at 1s. 4d. on the spot, and to arrive 1s. 3d. c.i.f. is quoted.

GUM ACACIA.—The market has again declined about 5s. per cwt. for forward, shippers offering Kordofan cleaned at about 64s. per cwt. c.i.f. for June-July shipment from Port Sudan, and natural sorts at 62s. As yet practically no interest is being shown by consumers, who feel that prices have not yet touched bottom. On the spot, Kordofan cleaned is quoted at 70s. to 72s. 6d., Talha at 40s. spot and at 30s. c.i.f.

IPECACUANHA is slow of sale at from 11s. to 11s. 3d. per lb. for Matto Grosso. The Continent offers Matto Grosso at 10s. 6d. per lb. c.i.f.



KAMALA, containing not more than 6 per cent. ash, for June shipment ex origin is offered at 3s. 3d. c.i.f.

LEMON JUICE.—Sicilian squeezed pulpy (preserved with SO<sub>2</sub>) is quoted at from 1s. 7½d. to 1s. 9d. per gallon in original packages.

LIME JUICE.—West Indian is quoted at from 2s. 9d. to 3s. 1½d. per gallon as to quality.

MENTHOL is the turn better: spot sales have been made at from 14s. 9d. to 14s. 10½d. per lb. on the spot, and 15s. is now asked for Kobayashi-Suzuki. Forward business has been done at from 14s. to 14s. 3d. c.i.f. for July-August shipment, with sellers at the latter price.

MERCURY.—The recent slowing down in the trade demand on account of the holidays has not been followed by any improvement. The inquiries coming forward are for small lots, and official quotations are as before, ranging from £22 5s. to £22 2s. 6d. per bottle net as to quantity, while the f.o.b. price is still £21 15s. for not less than 25 bottles. Spot parcels are offered by merchants at from £22 to £22 2s. 6d. net. U.K. imports for last month were only 348 bottles, against 160 bottles for the same month last year, and the total for five months is 4,374 bottles, comparing with only 1,036 bottles for January-May 1929. Re-exports for the same period were 2,077 bottles, against 2,498 bottles respectively.

ORANGE PEEL.—Old crop thin-cut Tripoli strip has been selling at about 6d. per lb., and for new crop from 8d. to 9d. per lb. is quoted.

PEPPER is steadier. Singapore is 11d. per lb. on the spot, with June-July shipment 9½d. c.i.f. Lampong is 10½d. spot. Sales for shipment include May-July at 9½d. to 9½d., and August-October at 8½d. to 8½d. Tellicherry is 11d. spot. Alleppey is 10½d. White Muntok is lower at 1s. 1½d., afloat 1s. 0½d., and to arrive April-June shipment is quoted at 1s. c.i.f. Sales include afloat at 1s. 1d., and for shipment May-July at 1s. to 11½d., July-August at 11½d., August-October at 11½d. to 11½d. to 11½d. c.i.f.

PIMENTO is unchanged at 8d. per lb. spot. For July-August shipment 70s. c.i.f. is quoted with sales of August-October at 65s. c.i.f.

QUILLAIA.—Chile's foreign trade in quillaia has expanded rapidly. In 1928 exports (3,211 metric tons, valued at \$513,000) nearly doubled. Germany receives annually about half of the quantity sold abroad. Great Britain, France and Spain also are important markets.

RHUBARB.—In the absence of adequate supplies of Shensi, buyers have had to fall back on Canton and High-dried. Rough round with good pinky fracture has been sold at 1s. 9d. to 1s. 10d.; two-thirds pinky fracture at 1s. 7d., and lower grades at from 1s. 5d. to 1s. 3d. per lb.

RUBBER.—Since our last report the market is practically unchanged. At one time spot "dipped" to a trifle under 6d. per lb., but at the close was 6½d. value. During the past week there has certainly been greater activity, and many of the manufacturers are now beginning to show more interest; in consequence, there has been a heavy demand for rubber for delivery over the whole of next year. Although prices are exceptionally low, it would appear that a further drop is not unlikely, in view of the constant flow of rubber from the East, and the comparatively small consumption in all countries. Last week arrivals totalled 1,232 tons, whilst deliveries were 744 tons, showing a further increase of 488 tons in the stocks. The London stock now stands at 78,104 tons against 31,142 tons at the corresponding period last year. The Liverpool stock now stands at 26,646 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard ribbed smoked sheet, spot and June, 6½d.; July-September, 6½d.; October-December, 6½d.; January-March (1931), 6½d. per lb.

SARSAPARILLA.—Pale to red native Jamaica is quoted at from 1s. 6d. to 1s. 7d. per lb., and genuine grey Jamaica at 1s. 11d. No Lima is available.

SEEDS.—ANISE.—Spanish is 57s. 6d. and Russian 31s. per cwt. on the spot. CANARY.—Mazagan on the spot is unchanged at 27s. 6d. per cwt. Tangier is selling at 26s. 6d. and Morocco (f.a.q. 4 per cent.) at 25s. 6d. LINSEED.—Mazagan on the spot is 25s. 6d. and Morocco 24s. 6d. CUMIN.—Sifted Malta is 70s. and fair average quality Morocco 65s. per cwt. There is not much to be had on spot at 57s. 6d. No business is passing for shipment. FENUGREEK on the spot is 18s. 6d., and for July-August shipment 14s. 6d. to 15s. c.i.f. is quoted. CORIANDER is quiet, with sellers on the spot at from 7s. 6d. to 8s. For prompt shipment 9s. c.i.f. is now quoted. CARAWAY.—Dutch on the spot is offered at 37s. 6d., and for prompt shipment 32s. 6d. per cwt. c.i.f. is quoted, and July-August shipment about 31s. 6d. c.i.f. DILL.—Indian (11 per cent.) remains at 21s. 6d. on the

spot. MUSTARD.—English is quiet at from 26s. to 31s. per cwt. according to quality.

SENEGA.—A few spot sales have been made at from 2s. 10d. to 2s. 10½d. per lb. Prompt shipment is quoted at 2s. 8d. c.i.f., and new crop for July-August shipment is nominal at 2s. 3d. c.i.f.

SHELLAC is flat and lower at 117s. 6d. per cwt. spot for usual standard TN; fine orange is 140s. to 230s., pure button 150s. to 155s., and AC cakey 130s. To arrive, sales of July shipment have been made at 95s. 6d., June-August at 96s., and July-August at 89s. to 92s. c.i.f.; October shipment at 97s. to 99s., September-October at 98s. to 95s. 6d. to 96s. c.i.f. Sales for delivery include August at 104s. to 107s. to 93s. to 102s., and October at 108s. to 110s. to 98s. to 105s.

VANILLA remains in plentiful supply and in quiet demand. Bourbon can be had now at from 8s. 6d. to 8s. 9d. per lb. for good-flavoured 6 to 7 in., and good Seychelles at from 6s. 6d. to 7s. 6d. per lb.

WORMSEED.—Fair business has been passing in prime green quality (without guarantee) in the neighbourhood of 2s. 3d. per lb. for at least 100-kilo lots.

### Essential Oils

BUSINESS has been patchy in the essential oil market and lack of demand has induced price shading. Anise is cheaper on the spot, and c.i.f. offers are again lower. Sicilian citrus oils are steady. Bourbon geranium is firm. Bulgarian otto of rose will be at about last year's rates. American oils (except cedarwood) are weak.

The following are the quantities and values of natural essential oils (other than turpentine) imported into and re-exported from Great Britain during May 1930, compared with the same month in 1928 and 1929, also for the period January to May:—

		1928	1929	1930
May imports	.. lb.	291,789	330,296	317,755
	value	£105,490	£129,356	£82,792
Jan.-May imports	.. lb.	1,699,071	1,868,493	1,690,718
	value	£489,070	£671,092	£500,421
May re-exports	.. lb.	59,965	77,576	69,447
	value	£25,256	£39,485	£24,003
Jan.-May re-exports	.. lb.	343,529	352,136	305,776
	value	£123,758	£170,993	£123,690

ALMOND.—English distilled s.a.p. is quoted at 39s. per lb.

ANISE (STAR) is cheaper on the spot, although still scarce and comparatively dear. Tins in cases are quoted at 4s. 10½d., and leads at 5s. 3d. For June-July shipment drums are offered at 2s. 9d., tins in cases at 2s. 10½d., and leads in cases at 2s. 11d. per lb. c.i.f.

BERGAMOT is unchanged on the spot at about 10s. per lb., and to come forward at from 9s. to 9s. 6d. per lb. c.i.f. according to seller.

BOIS DE ROSE.—Cayenne is offered at 5s. 3d. per lb. c.i.f., and Brazilian at 3s. 3d. per lb. c.i.f.

CANANGA is weak. Prices on the spot range from 8s. 3d. to 8s. 6d., and to arrive 7s. to 8s. c.i.f. is quoted.

CASSIA is a turn better, spot offering at 3s. 9d. to 3s. 10½d. per lb., and to arrive at 3s. 1½d. c.i.f. for 80-85 per cent.

CEDARWOOD is still firm and quantity offered in the primary market is small. Previous quotations at 1s. 9d. per lb. spot and 1s. 8d. c.i.f. to arrive are maintained.

CITRONELLA.—Java on the spot is quoted at 2s. 4½d. spot and at 2s. 4d. to 2s. 6d. c.i.f. according to position. Ceylon is unchanged on the spot at 2s. 2d., and to arrive at about 1s. 10d. to 1s. 10½d. c.i.f.

CLARY SAGE is quoted on the spot at from 11s. to 12s. per oz. Reports on the new crop indicate cheaper prices than last season.

CLOVE.—English drawn is quoted at 6s. 9d. per lb. spot. Foreign distilled is about 1s. per lb. less.

GERANIUM.—Bourbon is quoted at from 17s. to 17s. 9d. per lb. spot, and to come forward 17s. c.i.f. is now quoted. It is reported from the colony that producers are withholding. The market shows a firmer tendency and spot stocks are none too large. Algerian is weak at 16s. per lb. spot and 15s. 9d. c.i.f. to arrive.

LAVERNER.—French 33-40 per cent. is quoted at from 10s. to 10s. 6d. per lb. spot.

LEMON is steady. Hand-pressed on the spot is offered at from 4s. 3d. to 4s. 6d., and c.i.f. at 3s. 10½d. to 4s. 3d. Machine-pressed is quoted at from 3s. 10½d. to 4s. on the spot and to arrive at from 3s. 6d. to 3s. 7½d. per lb. c.i.f.

LEMONGRASS is weaker to arrive at 2s. 6½d. c.i.f., and on the spot 2s. 8d. is quoted.



MANDARIN is quoted at from 15s. to 16s. 6d. per lb. spot according to seller, and 14s. 9d. c.i.f. to arrive.

NEROLI.—Reports from Grasse indicate that the crop is almost finished and that it has been about half a normal crop. Larger quantities of flowers have been used to make floral concretes and pomades than in previous years, and flowers available for distillation of oil of neroli have been scarcely one-third of normal production. The yield of oil has been below normal. The following prices are quoted: Neroli petale, 47s.; bigarade extra, 37s.; and bigarade, 32s. per oz.

ORANGE.—Sicilian is slightly easier, spot offering at 9s. to 9s. 3d. per lb., and to arrive at from 8s. 6d. to 9s. c.i.f. West Indian is without business, spot offering at 8s. 9d., and to arrive at 8s. c.i.f.

PATCHOULI.—Seychelles is quoted at about 14s. 9d. per lb. spot; Singapore at 18s. 6d. spot and 17s. 6d. c.i.f.

PEPPERMINT.—Japanese demethylated is a turn better; business has been done on the spot at down to 4s. 9d. to 4s. 10½d. per lb. for Kobayashi-Suzuki, but the price is now about 5s. per lb. in five-case lots. No c.i.f. business is reported, and the price remains at about 5s. 1½d. for July-August shipment, with slightly less for quantity. American natural tin oil is weak in the primary markets. Spot prices range from 12s. 6d. to 12s. 9d., according to brand and at from 11s. 9d. to 12s. per lb. c.i.f. H.G.H. is quoted at 18s. spot and to arrive.

PETITGRAIN.—Paraguay on the spot ranges from 6s. to 6s. 6d. per lb., and to come forward 5s. 2d. to 6s. c.i.f.

ROSE.—Bulgarian otto will not be very much changed in price compared with last year, but probably prices will be a shade dearer. The price of flowers has been fixed at 22 leva, compared with 20 leva paid last year. A computation places the price at 106s. per oz. for absolutely pure own-distilled; 85s. for peasant distilled; and third quality 50s.

ROSEMARY.—Spanish is quoted at from 1s. 10d. to 2s. spot, and French at about 3s. 6d.

SPIKE.—Spanish is 2s. 7d. to 2s. 9d. per lb. spot. French is quoted at 4s. 3d. per lb. spot.

VETIVERT.—Bourbon is weak at 14s. 6d. per lb. spot.

WORMSEED (CHENOPODIUM).—No demand at source has induced price shading. To arrive, 11s. 3d. per lb. c.i.f. is quoted.

The following arrivals have taken place from the countries indicated during the period June 11 to June 17 (inclusive): Almond (U.S.) 4 cs.; anise (Fr.) 1 dm. 9 cs. 6 pkg.; bergamot (It.) 20 cs.; bois de rose (Neth.) 2 pkg.; cananga (Java) 2 dm.; cassia (H.-K.) 20 cs.; cinnamon (Cey.) 1 cs.; citronella (Br. Ind.) 1 dm.; (Java) 12 dm.; clove (Fr.) 6 dm.; geranium (Alg.) 3 dm.; gingergrass (Br. Ind.) 2 cs.; juniper berry (Ger.) 5 cs.; lemon (It.) 270 cs.; (U.S.) 2 dm.; orange (Sp.) 37 cs.; (It.) 14 cs.; patchouli (Sey.) 4 cs.; peppermint (Jap.) 25 cs.; (U.S.) 5 cs. 1 dm.; petitgrain (Neth.) 5 cs.; pine (Ger.) 2 cs.; sandalwood (Aust.) 70 cs.; (Neth.) 1 cs.; sassafras (U.S.) 2 cs.

### Pharmaceutical Chemicals, etc.

THE trade in most products in this market continues disappointing and quoted prices for a number of products are being generally discounted. Citric and tartaric acids and cream of tartar continue to weaken on neglected markets. B.P. tannic acid is easier.

ACETANILIDE is unchanged on a very dull market: B.P. crystals and powder, 1s. 4½d. to 1s. 6d. per lb. as to quantity.

AMIDOPYRIN is unchanged on quotation, with the market dull and easy: crystals, five cwt., 12s. 9½d. to up 13s. 3½d. per lb. for small parcels; powder, 1½d. per lb. more.

ASPIRIN continues quiet, with quoted values unchanged; market is not strictly steady at these rates: home trade, 2s. 9d. to 2s. 11d. per lb. as to quantity; export to Colonies and British Possessions, ten cwt., 2s. 8d.; up to 2s. 9½d. per lb. for small parcels; export to other destinations, about 3d. per lb. more. Home and Continental prices are level.

BARBITONE is quite neglected and easy: spot, from 7s. to 7s. 6d. per lb. as to quantity.

BENZALDEHYDE remains dull, with dealers' prices unchanged: quantities, in carboys, about 2s. per lb.

BENZOIC ACID (B.P.) has been quieter and there is keen competition: quantities, about 2s.; small parcels, about 2s. 1d. per lb. ex store.

BENZONAPHTHOL is offering at about 2s. 10d. to 3s. per lb. as to quantity, with business unimportant.

BISMUTH SALTS are unchanged at Convention rates; cheaper outside offers are met with: carbonate, 6s. 6d. to 7s. 3d.; subnitrate, 5s. 6d. to 6s. 3d. per ton as to quantity.

BROMIDES.—Business continues very restricted and prices are keen, but there is no material alteration in values: dealers quote ammonium, 1s. 9d.; potassium, B.P. crystals, 1s. 5d.; granular, about 1s. 5d.; sodium, B.P., about 1s. 8d. per lb. for fair quantities; home makers' prices are competitive.

CALCIUM LACTATE is dull and somewhat easy as quoted at 1s. 1½d. to 1s. 3d. per lb. as to quantity.

CHLORAL HYDRATE is steady, although business is limited: duty-paid crystals, home make, 3s. 1d. to 3s. 3d.; foreign, on spot, 3s. 6d. per lb.

CITRIC ACID (B.P. crystals).—The market quotation is about 1s. 6d. per lb., less 5 per cent., for foreign on spot. Business has been very poor, and there seem to be weak holders of stocks on the market; the tone continues unsteady. English makers quote 1s. 7d. per lb., less 5 per cent.

CREAM OF TARTAR is still moving to lower figures, with the quoted rates now at about 92s. to 93s. per cwt., less 2½ per cent., for foreign 99 to 100 per cent, powder on spot. Business has been slow and small and the tone is still weak. English makers quote 93s. 6d. per cwt., less 2½ per cent.

CREOSOTE (B.P.) continues to be offered on spot at 1s. 8d. to 1s. 9d. per lb. as to quantity.

CREOSOTE CARBONATE remains dull, with dealers quoting at about 5s. 9d. to 6s. 3d. per lb. as to quantity.

GUAIACOL CARBONATE is seldom inquired for: spot is quoted at about 4s. 4d. to 4s. 8d. per lb. as to quantity.

HEXAMINE.—The Convention prices of 2s. 2½d. to 2s. 4d. per lb. are nominal; sales prices are at about 1s. 10½d. to 1s. 11½d. per lb. as to quantity.

HYDROQUINONE is fairly steady, while business is fair: quoted from 3s. 7½d. to 4s. 5d. per lb. as to quantity.

LACTIC ACID (B.P.) remains slow of sale and easy as quoted at 1s. 11d. for ton lots up to 2s. for two-cwt. lots in carboys; in jars, one penny more.

METHYL SALICYLATE (B.P.) is unchanged on a slow market: quoted at 1s. 3d. to 1s. 5d. per lb. as to quantity.

METHYL SULPHONAL remains flat, with quotations on spot easy at 12s. 7d. to 13s. 10d. per lb. as to quantity.

PARAFORMALDEHYDE continues easy on a dull market at 1s. 7d. to 1s. 8d. per lb., as to quantity, for 100 per cent. powder.

PARALDEHYDE is unchanged on a slow market at 1s. 1d. to 1s. 3d. per lb. as to quantity and packing.

PHENACETIN.—There is still noticeable price cutting for a limited business: the market is easy at the Convention rates of 3s. 8d. to 3s. 11d. per lb. as to quantity, with powder 1½d. per lb. more.

PHENAZONE is receiving little attention: quotations, which are easy, continue at from 6s. 11d. to 7s. 3½d. per lb. as to quantity.

PHENOLPHTHALEIN is meeting with a small inquiry at from about 5s. 11d. to 6s. 1½d. per lb. as to quantity.

POTASSIUM PERMANGANATE (B.P.) remains slow of sale but steady: quantities in drums, 5½d.; druggists' parcels, 6d. per lb.

RESORCIN is unchanged at 2s. 11d. to 3s. 2d. per lb. as to quantity; business is slow.

SALICYLIC ACID (B.P.) is steady as quoted by home makers at 1s. 5d. to 1s. 8d. per lb. as to quantity.

SALOL continues to be quoted from 3s. 7½d. to 3s. 10½d. per lb. as to quantity, with business unimportant.

SODIUM SALICYLATE (B.P.) is unchanged throughout with business quiet: home trade, powder, two tons, 1s. 10d.; one ton, 1s. 10½d.; ten cwt., 1s. 11d.; five cwt., 1s. 11½d.; one cwt., 2s.; 28 lb., 2s. 1d., and less 2s. 2d. per lb., with crystals one penny per lb. more. Export prices, f.o.b. London or Continent, powder, two tons, 1s. 10½d. up to 2s. 0½d. per lb. for small parcels, with crystals one penny per lb. more.

SULPHONAL is neglected on spot: quoted at about 10s. 1d. to 11s. 2d. per lb. as to quantity.

TANNIC ACID is easier, B.P. *levis* offering at 2s. 8d. per lb. in one-cwt. kegs and 3s. for smaller lots.

TARTARIC ACID (B.P. crystals).—The market quotation, which continues unsteady, shows a further decline this week at 1s. 1d. to 1s. 1½d. per lb., less 5 per cent. for foreign on spot. Business has been most disappointing. The tone is still weak, due to anxious sellers. English makers quote 1s. 1½d. per lb., less 5 per cent.

THYMOL is unchanged on a slow market: synthetic fine white, five cwt., 8s. 9d. up to 9s. 8d. per lb. for small parcels.



VANILLIN is a dull item: ex clove oil, 14s. per lb. in cwt. lots; smaller quantities, 14s. 3d. to 14s. 6d. per lb.; ex guaiacol, 13s. 6d. per lb. in cwt. lots; lower prices for larger quantities in both instances.

### Industrial Chemicals, etc.

London, June 18.

GENERAL depression continues to be reported, and some items are easy as quoted. Formaldehyde shows a big drop in value on a keen but quiet market. Ammonium chloride and sodium acetate are easier; copper sulphate is lower.

ACETIC ACID is quiet and prices are barely steady: 80 per cent. technical, £36 15s.; 80 per cent. pure, £37 per ton in barrels; glacial, pharmaceutical, 99 to 100 per cent., £66, in glass demijohns; glacial, in barrels, £56 per ton, ex store.

AMMONIA (ANHYDROUS) is moving fairly well in limited quantities with competition keen: quoted from 10d. to 1s. per lb., in loaned cylinders, carriage paid, and less for large contracts.

AMMONIUM CHLORIDE is slightly easier on a dull market: grey galvanising, £21 7s. 6d. per ton, in casks, ex store; less for contracts.

ARSENIC.—The demand for white Cornish continues restricted, but agents' terms are steadily held at £15 15s. to £15 17s. 6d. f.o.r. mines. Inquiries are confined to small lots. Mexican high-grade is offering at about £16 15s. c.i.f. Liverpool.

COPPER SULPHATE.—While the export demand has continued negligible, the market is in an unsettled state and decidedly weaker on account of a renewed sharp break in the price of rough bar copper. The f.o.b. quotation for casks, less 5 per cent. discount, is nominally at around £23 10s. U.K. exports for last month were 4,974 tons, comparing with 3,014 tons for the same month last year. The total for the five months is 25,209 tons, comparing with 30,632 tons for the same month last year.

EPSOM SALT is steady on a quiet market: commercial quality, £4 5s. per ton, in single bags, ex store; less for contracts.

FORMALDEHYDE is much cheaper on a keen but quiet market: 40 per cent. by volume, £31 per ton, in casks, ex store; slightly less for large contracts.

ISOPROPYL ALCOHOL is steady, although business has dropped off a little: reliable make, 11s. to 12s. per gallon, in drums, carriage paid; lower grades at cheaper prices.

LITHOPONE is unchanged on a very quiet market: 30 per cent. Continental red seal, £19 10s. per ton, in casks, ex store; less for contracts.

OXALIC ACID has been quicker, but prices are about maintained at £32 per ton for quantities, ex store; small parcels, 32s. 6d. per cwt.

POTASH CAUSTIC is unchanged at Convention prices, while the market is dull: 88 to 92 per cent. solid, on spot, £29 10s. to £34 10s. per ton, in drums, ex store; 30s. per ton less c.i.f. in all cases.

POTASSIUM CARBONATE is easy and dull as quoted: 90 to 92 per cent., £23 10s. to £24; 96 to 98 per cent., £25 10s. per ton, in casks, ex store; less for contracts.

POTASSIUM CHLORATE is neglected: quantities, £26 5s. per ton; spot parcels, about 3½d. per lb. ex store.

POTASSIUM PERMANGANATE is dull but steady: commercial quality, in two-cwt. drums, 5d.; small parcels, 5½d. per lb. ex store.

SAL AMMONIAC is inclined to weaken on a dull market; market is easy as quoted: dog-tooth crystals, £32; medium, £28; fine white crystals, £17 12s. 6d. per ton, in casks, ex store; slightly less for contracts.

SALTCAKE continues in fair call, with supplies limited: home trade, 60s. per ton, delivered, in bulk.

SODIUM ACETATE is again easier on a flat market: spot, £20 per ton, in casks, ex store.

SODIUM CHLORATE remains slow of sale, with quantities offered at £24 10s. per ton and small spot parcels at about 3d. per lb. ex store.

SODIUM PRUSSIAN is meeting with little inquiry, but prices are unchanged on quotation: quantities, 4½d. to 5d.; small parcels, about 5½d. per lb. ex store.

SODIUM SULPHIDE is unsteady owing to outside competition: quoted at £9 5s. and £10 5s. per ton for 60 to 62 per cent. solid and broken, in drums, ex wharf, respectively.

COAL-TAR PRODUCTS, ETC.—General depression continues to be reported in this market. Carbolic acid crystals are in moderate demand and easy as quoted; cresylic acid is rather

lower. ANILINE OIL continues unchanged at 8½d. per lb., packages extra, carriage paid. ANILINE SALT is also unchanged at 8½d. per lb., packages extra, carriage paid. BETANAPHTHOL is steady at 9½d. per lb., carriage paid. CARBOLIC ACID CRYSTALS are in moderate demand: makers quote at 7d. to 7½d. per lb., carriage paid or f.o.b., in drums with overcasks; indications are that lower offers are not so frequent. Crude carbolic 60's are easier at 2s. 2d. to 2s. 3d. per gallon, naked at works. CREOSOTE OIL is still unchanged for export at 4½d. to 4¾d. per gallon, in bulk quantities, f.o.b., with home trade in the region of 4d. per gallon ex works. CRESYLIC ACID has been very flat and the market is easier: pale, 97 to 99 per cent., 1s. 10½d. to 2s. per gallon; special grades, 2s. 6d. to 2s. 8d.; dark, 85 per cent., 1s. 8d. to 1s. 9d. per gallon naked at works. NAPHTHALENE is unchanged and quiet: flakes and balls, £14 12s. 6d. to £14 15s. per ton, in cases, ex wharf. METHYL ALCOHOL is quoted on spot at about £42 per ton in drums; cheaper prices for quantities. PYRIDINE continues in small request at 4s. to 4s. 6d. per gallon f.o.b. TOLUOL continues unchanged and quiet: commercial 90's, 1s. 10d.; pure, 2s. 2d. per gallon ex works. XYLOL is dull, with prices unchanged: commercial, 1s. 10d.; pure, about 2s. 1d. to 2s. 2d. per gallon ex works. PITCH is unchanged at the nominal quotation of 47s. 6d. per ton f.o.b. East Coast. The season is now finished.

### Fixed Oils, etc.

DULL markets continue to be reported throughout this section, while the tone in most cases is unsteady. Palm oils, which have already reached a low level record, are again cheaper. Turpentine is dearer on the spot but easier forward. Cotton, groundnut and rape are easier. ACID OILS remain dull: coconut and/or palm kernel, 31s. 3d.; groundnut, 26s. 6d.; soya, 22s. 6d. spot. CASTOR remains dull: pharmaceutical, 45s. 6d.; first pressings, 40s. 6d.; second pressings, 38s. per cwt., in barrels, in not less than one-ton lots. Medicinal Italian in cases is lower at 63s. per cwt. on the spot, and at 59s. c.i.f. in ten-case lots. COCONUT.—Business is still slow: deodorised, spot, 40s. 6d.; Ceylon, 30s. 6d. c.i.f. COTTON is dull and easier: deodorised, 37s. 6d.; common edible, 35s. 6d.; soapmaking, 33s.; crude, 30s. 6d. spot. GROUNDNUT has been quiet throughout and is easier: deodorised, spot, 39s. 6d.; crude Oriental, 34s. c.i.f. PALM KERNEL remains dull: deodorised, 39s. 6d.; crude, 35s. 6d. spot. PALM.—Prices for all grades show a still further reduction with the market still neglected: Lagos, 22s.; softs, 21s. 6d.; mediums, 22s. 6d.; hards, 23s. 6d.; bleached, 24s. 6d. spot. RAPE is easier: refined, about 40s.; crude, 38s. spot. SOYA has been slow of sale: deodorised, 35s. 6d.; crude, 29s. spot. LINSEED (raw, naked).—Prices about balance on the week, but the market has been quiet throughout: on spot, 42s. 6d.; June, 40s. 3d.; July-August, 39s. 1½d.; September-December, 36s. 6d. Boiled oil on spot, 45s. 3d. TURPENTINE.—The market has shown continued firmness, helped by a good trade demand on the spot, and prices closed on Wednesday at about 40s. 9d. for spot and 39s. 6d. for July-December. London deliveries for last week were smaller at 1,743 barrels, making a total since January 1 of 46,541 barrels, comparing with 45,005 barrels for the same period last year. Stocks were increased to 12,050 barrels, comparing with 10,559 barrels a year before. Including the small landings, the total London visible supply made up at 12,558 barrels, this comparing with 16,389 barrels at the same date last year. RESIN.—The market was generally dull and spot lots of I/K were offering at 15s. 6d. Terms for shipment within thirty days c.i.f. were as follows: American B/D 13s. 9d. to 14s. 1½d., E 14s. 3d., F/I 14s. 4½d., K 14s. 9d., M/N 14s. 10½d. to 15s. 3d., and W/G 15s. 10½d. per cwt. WOOD.—Hankow in barrels on spot is dull and easier at about 49s. per cwt.

LUBRICATING, MINERAL, BURNING OILS, ETC.—Lubricating oils continue dull with an easy tone. Solvent naphthas are slightly easier on a flat market. Business generally continues poor. BENZOL continues in good demand, with the market steady: standard motor 90's, country, 1s. 5d. to 1s. 5½d.; London, 1s. 7d. per gallon, ex works, in tank wagons.

AMERICAN BROMINE CONSUMPTION.—United States bromine output in 1929 from brines and bitters was nearly three times greater than in the previous year. Production of liquid bromine and the bromine content of salts totalled 3,207 short tons, as reported by salt producers to the Bureau of Mines. Much of this increased consumption is attributed to the requirements of ethylene dibromide used in antiknock compounds for gasoline.





Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

#### Sales from Automatic Machines

SIR,—We should be pleased if you would make the following announcement in this week's issue: "Messrs. Gollin & Co. desire to announce that they have received the following communication from the Department of Customs and Excise relative to the sale of Aspro through automatic machines: 'I am directed by the Commissioners of Customs and Excise to state that their attention has been drawn to the sale of Aspro unstamped by means of automatic machines, and to inform you that they do not regard the exemption from medicine-stamp duty in favour of "known, admitted and approved" remedies as applicable to medicines so sold.'"—Yours faithfully,

For GOLLIN & Co. (PTY.), LTD.  
(Aspro Dept.),

G. M. GARCIA.

Slough.

#### Patenting of Medical Inventions

SIR,—In a recent lecture of "Fine Chemicals," read before the Manchester Section of the Society of Chemical Industry . . . Mr. Frank Lee Pyman, F.R.S., discussed various imperfections of the British patent system, with particular reference to the disadvantages arising from the fact that, owing to the ethical views prevalent in British medical circles, chemico-pharmaceutical and therapeutically important medical inventions are not patented by the inventors. He pointed out that this state of things is economically unsound from a national point of view, since it left it open to foreigners to monopolise British inventions by patenting improvements thereon. As a case in point, he cited "the brilliant work of Harington and Barger in determining the constitution and the synthesis of thyroxin" and the monopoly which a Swiss firm had acquired by securing British Patent No. 318,583 for an improvement on the novel, but unpatented, method of synthesising thyroxin adopted by Harington and Barger. We are authorised to make the following statement on behalf of F. Hoffmann-La Roche & Co., A.G., of the Roche Research Laboratories, Basle, Switzerland, the holders of the patent in question. They write: "Apart from the question of the actual value of the process covered by our patent, it is quite certain that, compared with Harington's fundamental invention, it is of minor importance. By taking out this patent we aspired to no monopoly. We merely wished to manifest to the outer world that our laboratories had been successful in improving the method. In order, however, to avoid any misconception of our intentions, and in view of Pyman's arguments, we have decided to relinquish our claim to the patent, and thus to allow our process to become general property." Yours faithfully,

THE HOFFMAN-LA ROCHE CHEMICAL WORKS, LTD.,  
ANDREW HOME-MORTON,  
General Manager.

London, N.13.

#### Then and Now

SIR,—I cannot go back as far as 1880, but I can go back far enough to have had experience of the "fine old dispensing" kind of business described by "Looker On" (*C. & D.*, June 7, p. 709), where the assistants lived in, and one or other was always on duty. In practice it meant that it was all duty, for there were no statutory half-days nor closing hours, and the shop was closed when scripts ceased to come in and there were no more to dispense; as many of the doctors sent their prescriptions in very late in the evening, this was

near enough to bedtime to preclude any relaxation. In my case there were two of us assistants, and we took it in alternate weeks to answer the night bell and do Sunday duty (all day), so that it meant actually a week at a time on duty without a break. It might have been a good thing for the business, but I do think we have progressed a little. There is, of course, the question of service; but in these days of insurance work, dispensing doctors, clinics, etc., there is not the public demand for a service of that kind except in a few wealthy neighbourhoods, and I do not think that any pharmacist situated in an ordinary middle-class locality who started such a service would keep it up for long.

Yours truly,

MIDDLE AGED (17/6).

#### Departmental Committee's Report

SIR,—After the publication of the evidence of the Pharmaceutical Society before the Departmental Committee comes that of the Retail Pharmacists' Union (*C. & D.*, June 7, p. 700); and as was fitting for a body acting for retail pharmacy, it was chiefly concerned with the sale of poisons and their storage in shops. If any proof were needed of the impracticability of separating the dispensing and sale of poisons from the Dangerous Drugs Acts it is afforded by a preliminary glance through this evidence, in which reference to the D.D.A. appears in many of the paragraphs; no pharmacist would consider for a moment discussing his position as a retailer of poisons without first taking into account his position under this Act. As the Committee disallowed the evidence of the Society in regard to these points, did they follow the same course with the R.P.U.? Paragraph 24 points out the impracticable nature of the locked receptacle regulation under ordinary business conditions; if the idea was to prevent theft by unauthorised persons, why is not the same or a similar restriction applied to these drugs when left in doctors' cars, from which thefts are reported in the papers repeatedly? On reviewing the position with a knowledge of the conditions under which we work, one can only think that these regulations were directed solely against pharmacists, the persons who have caused no trouble, and the difference meted out to them compared to others cannot fail to be noticed. Another point regarding storage is made in paragraph 23: whilst the pharmacist who has been trained to the careful handling of poisons must store them all according to rule, what onus is there on a factory or works to store cyanide or similar poisons under any safe conditions? The proposed division of the Schedule into six classes would seem to be rather cumbersome, and in some cases there might be overlapping.—Yours, etc.,

EVIDENTIA (17/6).

#### The Apprenticeship Problem

SIR,—The remarks of one of your contributors on the subject of the training of apprentices do not commend themselves by their perspicacity, and they render it obvious that it must be many years since the writer of them had any experience of shop work. Apparently he started as an apprentice under what might be regarded as excellent auspices, but his remarks on apprentices and their training do not show that he profited as he might have done in such favourable surroundings. Why he should have needed to wrestle for "weeks" in the endeavour to distinguish between the different substances colloquially known as "soda" is entirely beyond my comprehension, though it may be that his reported sniff at the euphorbium bottle upset his nervous system and destroyed for the time being his sense of discrimination. But his senior is stated to have been equally ignorant on the point, and there is no evidence that he also sniffed the contents of the euphorbium bottle. Are we to assume that the excellent master, "who was wishful for his lads to do well," was also unequal to solution of the "soda" problem? If so, it was fortunate indeed that Royle's "*Materia Medica and Therapeutics*" was available for ultimate enlightenment. Undue dependence upon that work, however, does not fit one for the solution of modern economic problems,



as revealed in the last paragraph of your contributor's notes. He is years behind the time with his belated suggestions of mutual instruction classes and assistants' associations at which papers were read. Why not recommend the perusal of Smiles's "Self Help," Cassell's "Popular Educator" and other out-of-date supposed aids to personal progress? There is a glimmering of truth in the suggestion that present-day students make the mistake of waiting until they enter college before troubling to seek information about their chosen business, but why assume that this is due to any greater lack of natural curiosity in young men nowadays than a generation or two ago? The fault is surely in the pharmacist who takes apprentices, without having the ability or the inclination to train them properly. Anyway, your contributor's remarks on apprentices and their imperfect training are curious, and cause one to reflect upon the inadequacy of old-fashioned ideas as a guide in these strenuous times.

Yours faithfully,

KRITES (16/6).

## Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

D. J. D. (29/58).—The following are the formulas for which you ask:—

Paste Metal Polish	
I	
Kerosene ...	336 lb.
Pale oleic acid ...	112 lb.
Stearic acid ...	112 lb.
Melt and grind with abrasive earth about 560 lb.	
II	
Tripoli ...	10 lb.
Pipeclay ...	10 lb.
Pumice flour ...	5 lb.
Pale oleic acid ...	40 oz.
Kerosene ...	30 oz.
Mix with sufficient white soft paraffin to form a paste.	

Paste Stove Polish	
Turpentine ...	50 lb.
Carnauba wax ...	8 lb.
Blacklead ...	8 lb.
Ceresin ...	4 lb.
Stearic acid ...	1 lb.
Mix and grind	
Liquid Stove Polish	
Turpentine ...	128 oz.
Blacklead ...	26 oz.
Rosin ...	4 oz.
Bone black ...	1 oz.
Oil-soluble black ...	1 oz.
Dissolve the dye and the rosin in the turpentine. Rub up the bone black with some of this, then add the blacklead.	

L. J. L. (21/58).—CHROME OINTMENT.—The preparation to which you refer is presumably Chrome Workers' Ointment. The following particulars and formulas are given in "Pharmaceutical Formulas" (10th edition), p. 668:—

To prevent the eczema which develops on the skin of workers in chrome factories the following ointments are recommended officially:—

I		II	
Soft paraffin ...	3 oz.	Soft paraffin ...	3 lb.
Lanolin ...	1 oz.	Paraffin wax ...	6 oz.
Melt on a water bath and add:		Carbolic acid ...	1½ oz.
Carbolic acid ...	5m		
The ointment is rubbed well into the skin, then wiped off with a clean cloth.			

J. H. S. (20/58).—PREPARING WHITE PIGS FOR SHOW.—Wash the pigs with a very weak solution of disinfectant fluid, and when dry, say the following day, rub in thoroughly churn or butter milk, and repeat in a few days. Between the rubbings either of the following can be slightly rubbed into the skin:—

I		II	
Mag. carb.,		Orris powder ...	3iij.
Alum. exsic ...	aa. q.s.	Rice flour ...	lb. j.

P. E. P. (3/8).—HAIR TONIC.—This preparation has the appearance of being merely soft paraffin. It has been examined for a wide range of the usual medicaments with entirely negative result except that there may be a trace of cantharidin.

## Legal Queries

J. R. (13/1).—There is no "Pharmaceutical Board of Canada," since there is no Dominion law regulating the practice of pharmacy throughout Canada, each of the nine provinces possessing its own pharmaceutical association as the statutory registering body. The requirements as regards the standard of education demanded of entrants and the examinations differ in the various provinces; particulars of these requirements were given in the Commercial Compendium in THE CHEMIST AND DRUGGIST, March 14, 1925, p. 403.

J. H. H. (16/6).—The inclusion of the words "preventive against flatulency" on the label for the lozenges would render the article liable to medicine-stamp duty. In compliance with the new ruling of the Commissioners of Customs and Excise, to secure the exemption in favour of "known, admitted and approved" remedies, it would be necessary to print on the label itself, as well as on the outside wrapper or carton, the complete formula and the words "no proprietary rights are claimed in the preparation of this medicine." This Order was published in THE CHEMIST AND DRUGGIST, March 8, 1930, p. 300, where the new ruling formed the subject of an editorial article.

Belle Vue (31/5) borrowed money to purchase a business. The loan is at 5 per cent. per annum, interest payable quarterly. He now understands that he should have deducted income tax before making these interest payments, and asks what steps he shall take to recover that which he did not deduct. [The position is this: In deducting the standard rate of tax (now 4s. 6d. in the £) before making the payments, "Belle Vue" is acting as a collector of tax for the Crown. His income tax return will show that he has a charge on his income by way of annual interest, and that it was paid less tax. "Belle Vue" does not, therefore, gain anything by paying the interest less the tax. If he will remember that by deducting tax first, he has to pay his interest to two persons (i.e., the State and the lender) instead of one, we think he should have the position quite clear.]

W. G. B. (2/6).—A house has been let for the past four and a half years under a verbal agreement. Recently the house was sold, and the new landlord has told the tenant that he must in future pay the district rates and the water rate, which have in the past been paid by the landlord. "What is the tenant's position? If he pays the rates can he deduct the amount from the rent? [If under the original tenancy the first landlord agreed to pay the rates, the new landlord cannot pass on that obligation to the tenant until the existing tenancy has been terminated by the requisite notice. Until that has been done, the landlord continues liable to pay the rates, and if the tenant is compelled to do so he had better deduct the amount from the rent and counter-claim a like sum if he is sued by the landlord for the balance of the rent.]

## Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," June 15, 1880

Exhibition at 17 Bloomsbury Square

The chief novelty in this section [shop fittings] was found in a case containing a number of specimens of the American patent recess-labelled shop rounds. All kinds of bottles labelled in this manner were exhibited, a variety of thirty different styles of labels being included. The general opinion was very favourable as regards appearance, while the advantage of a label let into the bottle and covered with glass, as regards cleanliness and permanence, was obvious. These were exhibited by the agents, the Glasgow Apothecaries' Company. . . . A dispensing counter, completely fitted, from the design which gained the prize offered by the journal some years ago, and awarded by Messrs. Hills, Ince and Savory, was exhibited by the designer, Mr. Filmer Kidston.





[Commenced C. & D., July 5, 1924]

**Snuff.**—A preparation of powdered tobacco used for inhalation. The custom of snuff taking was possibly adopted from the Indians, who inhaled it through long canes. Sternutatories were sometimes compounded from such drugs as ginger and pyrethrum with a tobacco basis. The practice of snuff taking became fairly common in England in the seventeenth century and throughout the eighteenth century was almost universal. Snuff at the present time is of two kinds, dry and moist. The moist variety is made from leaves, stalks and "smalls," while the dry is mostly made from stalks. A number of different types are available, including Scotch, Welsh and Irish (dry) and rapée (moist). Various salts and essential oils are employed for flavouring purposes. Lime, added as lime water, must not exceed 1 per cent.; the total of lime and magnesia must not exceed 13 per cent.; while the total alkalis are limited to 26 per cent. The oils include cinnamon, cassia, cloves, otto of rose, lavender, bergamot, bitter almonds and certain alcoholic extracts and solutions. Snuff is nowadays rarely adulterated, owing to rigid enforcement of the tobacco laws. A tobacco dealer's licence is necessary to sell the commodity retail; the cost is 5s. 3d. annually.

**Sodium Bromide** may be obtained by adding bromine to a hot solution of caustic soda with which powdered charcoal has been mixed. Sodium bromide and bromate are formed. The liquid is evaporated to dryness and the solid residue heated to redness, when the bromate is reduced to the bromide by the charcoal. The salt is then purified by recrystallisation, evaporation being carried out above 50° in order to obtain the official anhydrous form. It occurs as cubic crystals or as a white granular powder, which is hygroscopic but not deliquescent. It is readily soluble in water, 1 in 1½, and in alcohol 1 in 16; the aqueous solution is neutral to litmus. The B.P. 1914 requires a maximum loss of weight of 5 per cent. on drying at 110°, and the dried salt must contain not less than 99 per cent. of NaBr.

**Sodium Cacodylate**, or sodium dimethyl arsenate, has the formula  $(\text{CH}_3)_2\text{AsOONa} \cdot 3\text{H}_2\text{O}$ , the proportion of water present being variable, although it should be between 25 and 28 per cent. It is prepared indirectly from Cadet's liquid—a spontaneously inflammable liquid formed on distilling dry arsenious oxide with potassium acetate—the principal constituent of which is cacodyl oxide  $(\text{CH}_3)_2\text{AsOAs}(\text{CH}_3)_2$ . This, on oxidation with mercuric oxide and water, gives the very stable cacodylic acid. The second constituent of Cadet's liquid, cacodyl  $(\text{CH}_3)_3\text{As}_2$ , also gives the acid on oxidation. The sodium salt is formed by neutralising cacodylic acid with sodium carbonate. It is a white, crystalline, odourless powder, becoming somewhat damp on exposure to air, readily soluble in water and in alcohol.

**Sodium Carbonate** was formerly manufactured almost entirely by the Leblanc "black ash" process from sodium chloride. This was converted to salt-cake (q.v.), and the latter product, mixed with limestone and coal, was heated in some type of reverberatory furnace. This process has been superseded by the Solvay process, in which sodium bicarbonate (q.v.) is first produced and is converted to the normal carbonate by heat. The product thus obtained is much purer than that obtained by the Leblanc process owing to the greater purity of the raw materials and the greater simplicity of the plant and procedure. Both these processes have now to compete with the Hargreaves Bird electrolytic method. A rectangular cell is divided by two asbestos divisions. The innermost compartment contains

a solution of sodium chloride, in which is immersed a gas-coke anode. The cathodes, two in number, are in the side compartments and consist of a network of copper wires fixed to the asbestos partitions. The asbestos is such that the brine does not pass through but the cathodes are kept moist. On passing the current the sodium liberated at the cathode reacts with the moisture to give sodium hydroxide. Steam and carbon dioxide are blown in and a solution is produced from which crystals of sodium carbonate separate on cooling. Another method is employed in America in which the mineral cryolite is used. This is found in Greenland and consists of a double fluoride of aluminium and sodium,  $\text{AlF}_3 \cdot 3\text{NaF}$ . When the mineral is heated with lime under pressure, sodium aluminate is formed. An aqueous solution of this is treated with carbon dioxide under pressure, when aluminium hydroxide is precipitated and sodium carbonate remains in solution. A certain amount of soda is obtained from natural deposits such as those at Lake Magadi in East Africa. The deposits have a composition represented approximately by  $\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$ , or sodium sesquicarbonate, and in recent years have been worked on a commercially successful scale. Ordinary washing soda is the decahydrate  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ , but crystals have been obtained with 1, 2, 5 and 7 molecules of water. The decahydrate is efflorescent, forming probably the pentahydrate. It is official in the B.P. 1914, where it is required to contain not less than 99 per cent. of  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ . The U.S.P. X includes the monohydrate which is obtained by conducting the evaporation of a solution above 35°. It is more stable than either the anhydrous salt or the decahydrate, and neither absorbs moisture nor effloresces to any appreciable extent. It forms small rhombic crystals and is used in some bath salts, etc. It is also known as "crystal soda," and is preferable to ordinary washing soda owing to its smaller bulk. Pure anhydrous sodium carbonate forms a useful basis for the standardisation of volumetric solutions of acids. For this purpose it is best prepared from the purest commercial bicarbonate. Sodium bicarbonate is recrystallised at a low temperature, and the crystals washed once with cold water and dried at 110°. The pure dry substance is then heated at 270°–300° until the weight is constant; during the heating precautions should be taken against absorption of fumes from the Bunsen flame or other heater.

**Sodium Chlorate.**— $\text{NaClO}_3$ , is manufactured by passing chlorine into milk of lime; the final products of the reaction being a mixture of calcium chloride and chlorate. Excess of lime is removed by decantation, and the solution evaporated to a definite specific gravity, such that on now cooling to 10°–12° calcium chloride crystallises out and the chlorate remains in solution. Salt-cake or sodium sulphate is then added; double decomposition takes place, calcium sulphate is precipitated and removed, and the residual solution of sodium chlorate is evaporated to obtain crystals. Magnesia may be used in place of lime, and in this case the magnesium chloride obtained as a by-product can be re-converted to magnesia by precipitating with sodium carbonate and calcining at a low temperature. A considerable quantity of sodium chlorate is now prepared by electrolytic processes. In these, the electrolyte is sodium chloride solution, and the cell is arranged so that chlorine from the anode compartment is brought into contact with the liquor in the cathode compartment. The chloride and chlorate formed are separated by fractional crystallisation, the chloride being less soluble. Sodium chlorate occurs in colourless tetrahedral crystals, or as a crystalline powder. It is soluble in cold water 1 in 1, in boiling water 1 in 0.5. It is stable in air, but decomposes on heating giving off oxygen, and is liable to explode when rubbed with organic matter or any readily-oxidised substance. Medicinally, sodium chlorate resembles the corresponding potassium compound, but is not so extensively used, although it is cheaper, more soluble and more palatable. It finds industrial application in the manufacture of dyes, particularly aniline black, and in the manufacture of explosives.

**Sodium Chloride.**—The mining and preparation of common salt is described under "Salt, common" (q.v.). The principal impurities in salt are the chlorides and sulphates of calcium and magnesium. The chlorides are



## The C.&D. Commercial Compendium

deliquescent, and the salt is therefore liable on exposure to become damp and to cake. In order to prevent this and to make the salt pourable for domestic use, an addition of calcium phosphate, magnesium carbonate or starch is made; such additions render common salt unsuitable for pharmaceutical use when sodium chloride is ordered. Salt may be purified by passing hydrogen chloride gas into a strong aqueous solution, when crystals of sodium chloride are precipitated in the form of colourless cubes, which are washed and recrystallised, if necessary. The salt is soluble in water, about 1 in 3 in cold water, and approximately the same in boiling water; it is also soluble in glycerin about 1 in 10. When heated above 100° it decrepitates and slowly volatilises; it can be melted at higher temperatures. Sodium chloride owes its medicinal use to the fact that it is physiologically inert, and any effect it may have is due to physical causes. Normal saline, containing 0.91 per cent. of sodium chloride, is isotonic with blood serum and therefore produces no osmotic effect on blood or tissue cells with which it comes into contact. For this reason normal saline is used in the preparation of injections and is administered by injection *per se* in cases of surgical shock, and when the body has lost much fluid as in hæmorrhage, diarrhoea, etc. It is also used in surgery for washing wounds and body cavities. As an ointment prepared with an equal weight of soft paraffin it is sometimes used in ringworm.

**Sodium Citrate** is obtained by neutralising citric acid with sodium carbonate or bicarbonate. The acid is tribasic, and sodium citrate is the normal salt, and crystallises with two molecules of water. It can also be obtained by double decomposition between calcium citrate and sodium carbonate. It occurs as odourless granular crystals which effloresce slowly in dry air. The salt is readily soluble in water, 2 in 3 in the cold, and about 2 in 1 of boiling water; it is insoluble in alcohol. On heating it loses all water of crystallisation at 150°, and at a higher temperature it is charred, forming a mixture of carbon and sodium carbonate. Sodium citrate is administered orally to counteract acidity of urine. A more important use is due to its effect on the blood, the coagulation of which is prevented by the precipitation of its calcium as insoluble calcium citrate. It is therefore used in indirect blood transfusions, and is added to saline injections. A similar effect is exerted on milk; the clotting which takes place in the stomach after drinking milk, is prevented by sodium citrate. For this reason the salt is added to milk used in infant feeding, in the proportion of 1-2 grains to the ounce, the formation in the stomach of an insoluble clot of calcium caseinate being thereby avoided.

**Sodium Hydroxide.**—Since very early times it has been known that soda could be causticised by treatment with lime to yield an alkali which was employed for making soap. An aqueous solution of sodium carbonate is treated with milk of lime. The precipitated calcium carbonate is allowed to settle and the caustic soda solution evaporated. The reaction is to some extent reversible, and the product contains lime and sodium carbonate. The impurities however are insoluble in strong sodium hydroxide solution, and can be removed by allowing a 1 in 1 solution of the impure substance to stand for a time, when the impurities settle. This method has now been replaced by an electrolytic process employing brine as the raw material. Sodium and chlorine are the products of electrolysis; the former reacts with water to give the hydroxide and the hydrogen liberated may be combined with the chlorine to give hydrochloric acid, or these gases can be utilised in other ways. An early difficulty of the process was the disinfecting action of chlorine on the material of the electrodes. Graphitised carbon or artificial magnetite is now used for the anode, and copper or iron for the cathode. It is necessary to remove the sodium hydroxide from the cell as soon as formed since otherwise that substance also is electrolysed, reducing the yield and

giving an impure chlorine. Various patented types of cell are in use which overcome the difficulty more or less successfully. The anode and cathode compartments are usually separated by asbestos partitions with a metallic cathode on the outer side of the partition and maintained moist. A current of brine is passed in the direction from the anode to the cathode at such a rate that the migration of the hydroxyl-ion is just counteracted. This involves another source of trouble since migration of Cl ions to the cathode compartment is not prevented, and the sodium hydroxide solution may be contaminated with chlorate and hydrochlorite. In another type of cell, the cathode consists of mercury with which the liberated sodium forms an amalgam. This is decomposed by water outside the sphere of action of the current. Several degrees of purity are obtainable commercially. That "purified by alcohol" should contain not less than 95 per cent. of NaOH. The name is derived from an old method of purification in which a solution, evaporated to thin syrupy consistency was treated with an equal volume of alcohol, the supernatant liquid poured off, and partly evaporated, again poured off and crystallised. The same degree of purity is now obtainable by the electrolytic process. "Pure stick" caustic soda should contain 90-95 per cent.; "commercial powder" contains about 95 per cent.; "lump" contains upwards of 60 per cent.; "cream caustic" contains about 50 per cent. of the monohydrate NaOH. H<sub>2</sub>O, and 30 per cent. of anhydrous NaOH. Chemically pure sodium hydroxide is best obtained by the action of sodium on water.

**Somerset House.**—A building extending from the Strand, London, W.C.2, to the River Thames, erected in 1776-86, on the outside of a quadrangle measuring 319 ft. by 224 ft. The older palace which it replaced was built for the Protector Somerset, uncle of King Edward VI, and is of some interest from the circumstance that Anne, Queen of James I, granted John Gerard, author of the herbal bearing his name, the lease of an adjoining garden plot on condition of his supplying her with herbs, flowers and fruit. For some years after the present building was commenced the Royal Society and the Society of Antiquaries had rooms allotted to them with an entrance under the present main archway from the Strand and on its left side; and the Royal Academy of Arts occupied rooms on the opposite side of the archway. Somerset House is now entirely appropriated to the use of Government departments for the registration of births, marriages and deaths, the probate of wills, the issue of revenue stamps and other purposes.

**Soothing Syrups.**—The earliest use of the expression "soothing syrup" as a general term that we have traced occurs in THE CHEMIST AND DRUGGIST in 1878 (p. 469). In the eighteenth and nineteenth centuries preparations of this type were known as cordials or preservatives. They were liquid preparations consisting of ingredients such as magnesium carbonate, sugar, oil of anise, oil of peppermint, oil of dill and water, in some cases with the addition of tincture of opium. As the susceptibility of infants to small doses of opium came to be generally recognised, makers who included tincture of opium in their formulas gradually reduced the quantity and eventually deleted the ingredient.

**Soya Bean** (*Glycine hispida* or *Glycine soja*).—An exhaustive survey dealing with the cultivation, production and commerce of the soya bean and its oil cake meal and its application to manufactured products was published in our Annual Special Issue of June 29, 1929, and supplementary information was given in our issue of February 1 (p. 139).

**Spanish Fly.**—See Cantharides.

**Sparadrap.**—A piece of linen or other permeable material impregnated or spread with an ointment or other medicament of suitable consistence. The earliest quotation in the O.E.D. is dated 1543. The French Codex uses the term for plasters spread on fabric or paper. Formulas will be found in "Pharmaceutical Formulas," 10th edit., pp. 139-140.



# HOWARDS' BRITISH SALICYLATES

## ASPIRIN B.P. pulv., cryst. or gran.

Howards' Aspirin Gran is an excellent product of finest quality and made specially for use in tableting. It is used exclusively in the manufacture of Howards'

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## ACID SALICYL. B.P. Pure

In fine long needle crystals of exceptional purity.

*N.B.—Special low prices are quoted for all the above*

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STOCKS.***DRUGS,  
GALENICALS,  
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MEDICINES,***QUICK  
DESPATCH.***PROPRIETARY ARTICLES, SURGICAL DRESSINGS,  
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*Commercial and B.P. Qualities  
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Chemicals sent on application***DRUGS, GUMS, POWDERS, OILS, &c.****AGAR AGAR**  
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JOHNSON'S LYSOL is guaranteed and is attractively packed; the Carton is smart and well printed, and with each bottle there is an Aluminium Measure Cap, also a Direction Leaflet giving much useful information including Medical and Domestic Hints.



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Guaranteed to contain 50% Cresols.

Is free from alkalinity and irritation caused thereby.

Is manufactured under analytical control.

Has a high Rideal-Walker co-efficient.

Is completely soluble in water.

*Sample 4 oz. bottle sent on application.*

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Cleanse the blood and remove all poisonous waste from the system smoothly, naturally, and with perfect safety. Indispensable in all cases of Constipation, Indigestion, Flatulence, Liver Disorders, Depression, Debility, Skin Blemishes, Boils, and all Stomach Troubles. An Ideal Natural Laxative for Children.

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48/- per Gross.

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With Showcards, dummy Cartons, and literature.  
Carriage paid, showing

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*We suggest it would be decidedly to your advantage to obtain sample and quotation from :*

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46/- gross tablets.  
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42/- gross tablets.  
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20/-, 38/-, 54/- dozen.  
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BATH SALTS  
in a variety of containers.  
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76/- gross tablets.  
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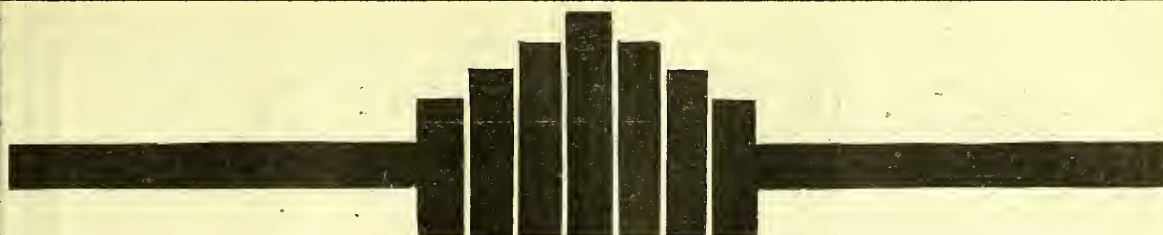
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*The Chemist's Brand*  
**LIQUORICE JUICE**

**SOLAZZI JUICE IS GUARANTEED  
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WITHOUT ANY ADMIXTURE WHATEVER**

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In great demand by the public.

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MEDICINAL SNUFF. ABSOLUTELY THE  
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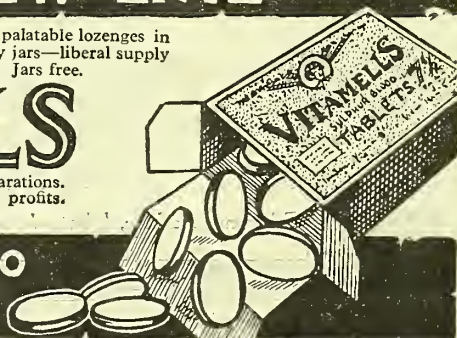
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Ask us to send you a free 7½d. sample packet.

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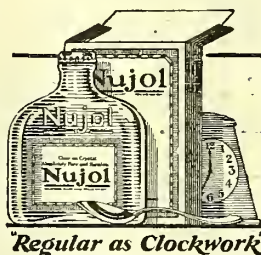


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*Exceptional Stability & Purity*  
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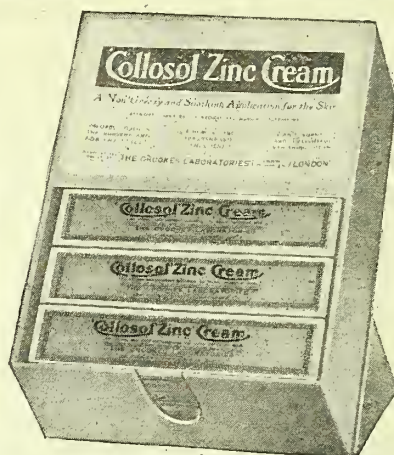


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A display container of 1 doz. tubes.

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A COMBINATION OF PETROLAX AND PHENOLPHTHALEIN

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A COMBINATION OF PETROLAX AND MIST. MAGNES. HYDROXIDI

Note the Prices:—RETAIL 2/- (Nominal ½lb.) 14/- doz.

„	3/6 (	„	1lb.)	24/-	„
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# QUICKLY BECOMING A BEST SELLER!



Since GERMOLENE (Medicated) TOILET SOAP was reduced in price to

**6<sup>d.</sup> per Tablet**

it is quickly establishing itself as one of the **BEST SELLERS** in the Drug Trade. Sales are steadily increasing week by week as a result of the national advertising campaign being conducted on behalf of this line. It will pay YOU to have a stock of GERMOLENE (Medicated) TOILET SOAP ready to meet every demand. Packed in attractive cartons suitable for counter display. Order supplies through your wholesaler or direct from

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*Also packed in cartons  
of one dozen tablets.*

*Germolene*  
(MEDICATED)  
**TOILET SOAP**



*THERE IS*  
AN ALL-THE-YEAR-ROUND DEMAND  
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## LUNG TONIC

### for COUGHS and COLDS

PRICE PROTECTED AT FACE VALUE

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LIMITED

**For 50 YEARS**

*Specialists in*

**FLAVOURS**

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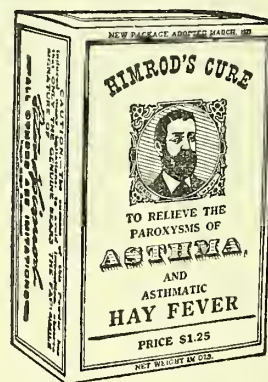
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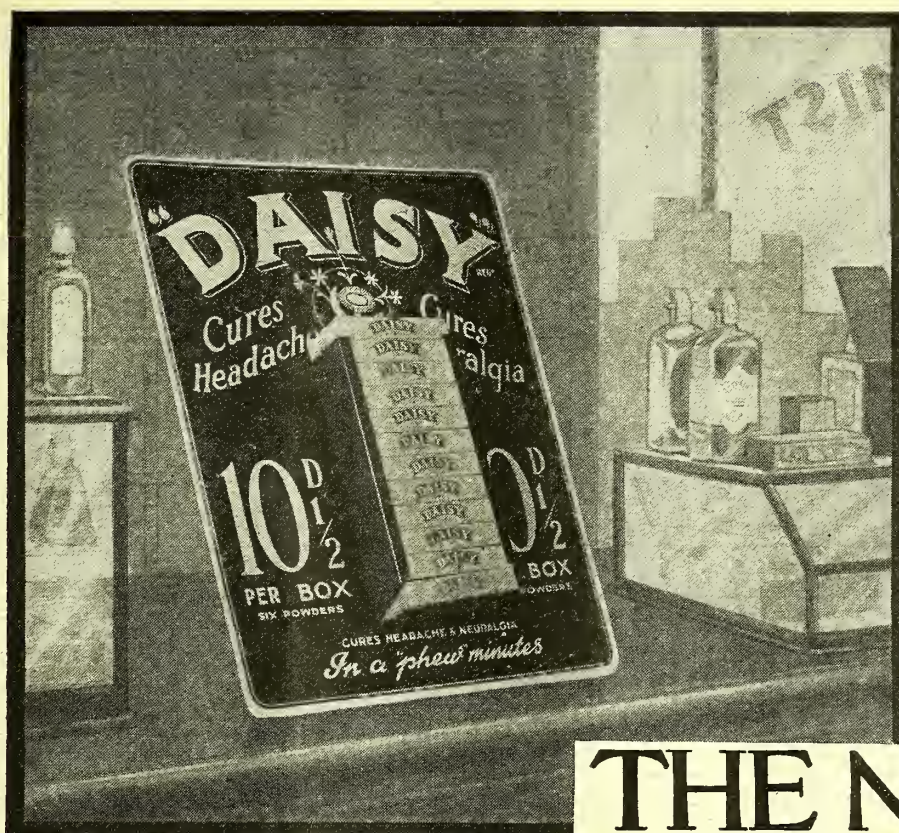
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## THE NEW SEMI-AUTOMATIC CONTAINER PROMOTES DAISY SALES

### P.A.T.A. PRICES

10 1/2 d.

Boxes containing  
6 powders



7/10 1/2

Per dozen boxes

Daisy Powders can now be displayed in the novel form illustrated above. This new device is a combination of an attractive Show Card and a Semi-Automatic Container which holds one dozen 10 1/2 d. Packets. Each time a packet is withdrawn from the bottom, another packet slides into position, ready to be handed to the next customer. Neat and convenient, the Semi-Automatic Container links up the shop with Daisy advertising, catches the eye of chance customers, and helps to increase sales. A Daisy Showcard Container will be sent post free with each order for One dozen packets

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# YOUR POSITION AS A HIGH-CLASS CHEMIST

is assured by your using first-rate printing. Have you ever realised how impressed customers are with your products if they are labelled just a little better than your competitors'?

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are masters in the art of Chemists' Printing. Our name is foremost in the Chemist's mind.

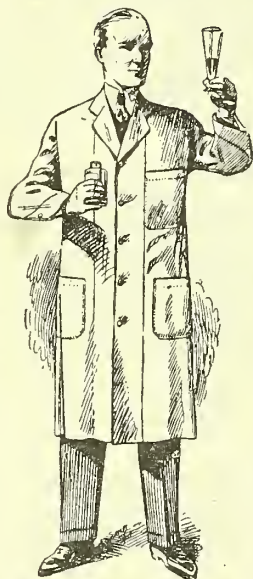
Why not give us your next order? Our Representative will be pleased to call when in your District. 'PHONE: HOP 3474, or drop us a P.C.

A FEW SPECIAL ITEMS FROM STOCK WHICH CAN BE SENT YOU  
PER RETURN

PHOTO WINDOW BILLS	GLAZED DEMY No. 394	UNWRAPPED SKILLETS	DANGEROUS DRUG ACT REGISTER	POISON BOOKS,	PRESCRIPTION BOOKS
2 sorts, Black on Yellow or Black on Crimson, 6 different wordings, 1/9 per set.	17½ x 22½, 16 lbs. 1 Ream ... 5/2 5 Reams at 4/10	1 oz. Size 7/3 1,000 2 " " 8/- " 4 " " 9/- " 16 " " 10/- "	brought right up to date 7/6	320 entries 4/6 576 " 5/6	From 19/6 to 50/-

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**WHITE DRILL JACKETS** 6/11, 8/11, 10/6

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**GREY COTTON COATS** 7/6

STOCK SIZES: 34 to 44 chest. Special pockets and little adjustments can be made without extra charge. POSTAGE on single coat 9d., but 20/- orders upwards carriage paid.

**SPECIAL PRICES FOR  
LARGE QUANTITIES**

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Established 1839.

*In the last  
5 years  
the sales of*



## TOWN TALK

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**have increased  
3 Fold**

**Get your share of the  
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**JAMES WOOLLEY, SONS & CO., Ltd.,**  
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In Jars  
1/6 and 2/11  
From all  
Wholesalers

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NATURE'S FRUIT LAXATIVE FOR CHILDREN AND ADULTS

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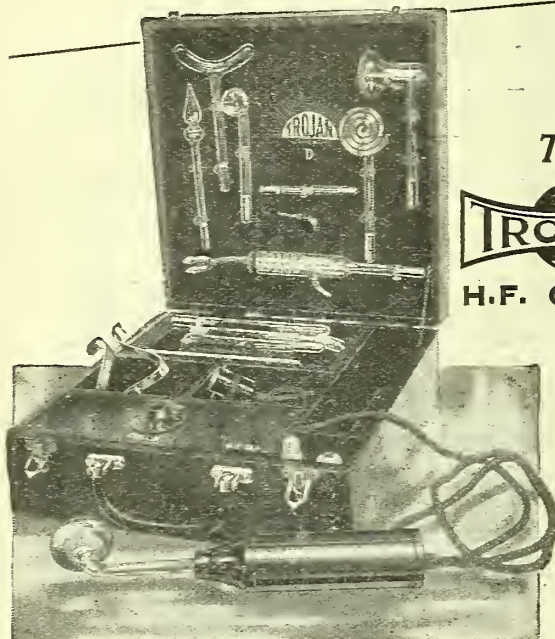
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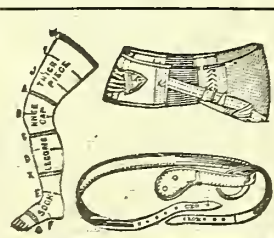
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FREE  
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Goods well packed are half sold, and easier selling means more sales.  
We have expert box designers who specialise in designing boxes which are salesmen as well as packages.  
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**TUBES** of all kinds,  
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**IMPORTANT:** When asking for quotations send samples already used and state quantities required. Goods will arrive in 3-4 days with direct steamer from Cologne.



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In Display Outlets as illustrated.

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WHICH YOU CAN SELL OVER THE COUNTER  
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Are obtainable through all wholesalers

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1857**SOLPORT**  
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**ART. SILK  
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*Crêpsyl*

(WOVEN CRÊPE)

Dainty and ideal for  
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BANDAGES—widths 2in. to 4in. 1/8 to 3/4 ea.

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Ideal for Varicose Veins.

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*The*  
**DOG  
MEDICINE**

with the  
**LARGEST  
SALE in the  
WORLD is**



**BOB MARTIN'S**  
*TASTELESS*  
**CONDITION POWDERS**



*This*  
**BEAUTIFUL  
SHOWCARD**  
will attract  
every dog owner  
to your window.

A painting by Arthur Wardle has been reproduced in full colours on a bevelled Showcard, measuring 10 in. x 8 in.

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*The contents of the*

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½ doz. Small Strength	1/10½		
1 " Medium	3/9		
½ " Large	1/10½		
		s.	d.
doz. 6d. Distemper Powders	...	1	10
" 6d. Worm Powders	...	1	1½
" 6d. Worm Tablets	...	1	1½
1/- '92 Ointment	...	2	3
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Carriage paid in the United Kingdom ... **18 4**

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**EUREKA**  
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**SPRAY**

**KILLS FLIES,  
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*Leaves no nasty smell  
Does not stain*

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Write for generous trade  
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**THEY** catch flies  
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**WASP  
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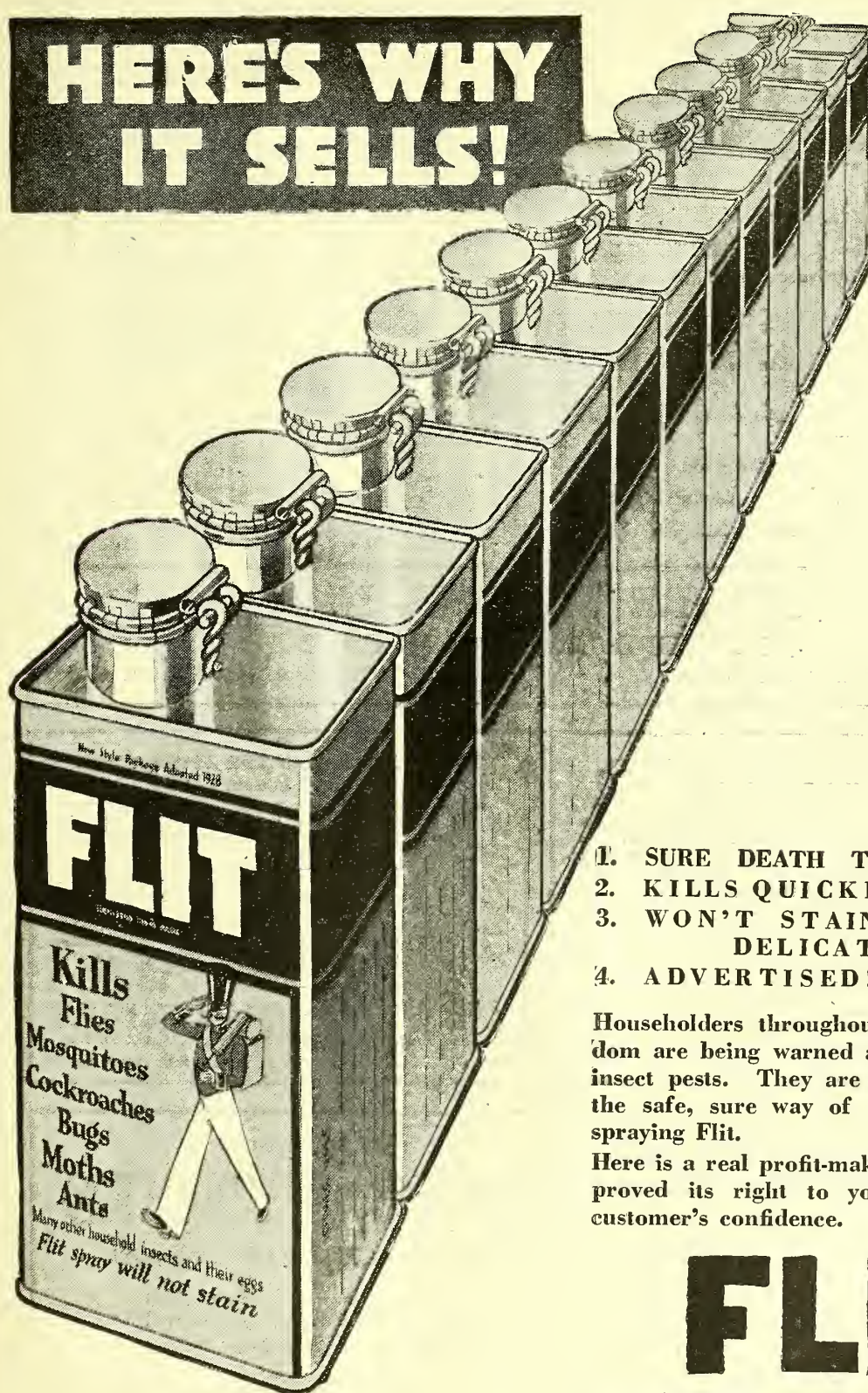
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The Wasp Flyband way is the quickest, surest and most hygienic way of destroying flies. Every customer satisfied. Stock always fresh and saleable. Profits good and brisk. Order your supplies NOW.

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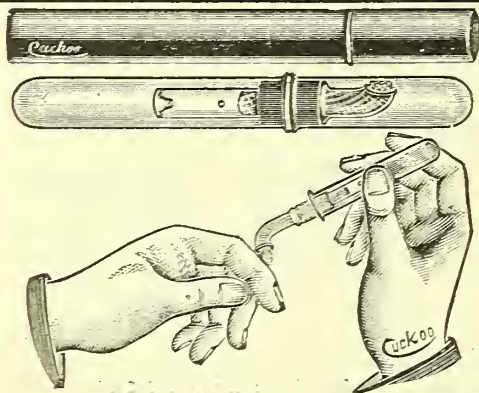
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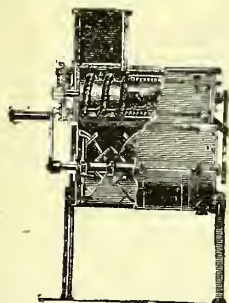
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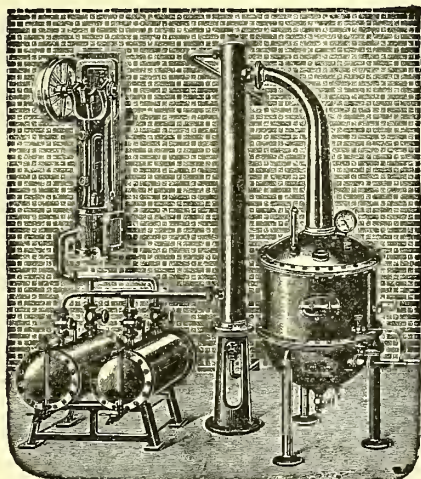
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Evaporating Pans. Autoclaves and Digestors.

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**DRY BOTTLE CAPS**

Superfine  
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All sizes and  
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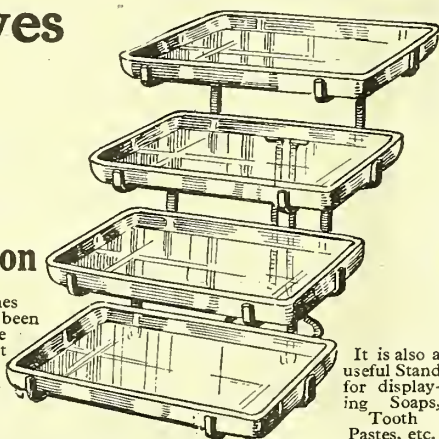
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It is also a useful Stand for displaying Soaps, Tooth Pastes, etc.

No. CDSF 2851—Very attractive **COUNTER DISPLAY STAND**. Constructed of mild steel finished Silver colour and complete with four clear glass trays size  $11\frac{1}{2} \times 7 \times 1$  in. Each tray is slightly sloped rendering the goods easy to see and select from. The overall height is  $15\frac{1}{2}$  in., width 12 in., back to front 15 in.

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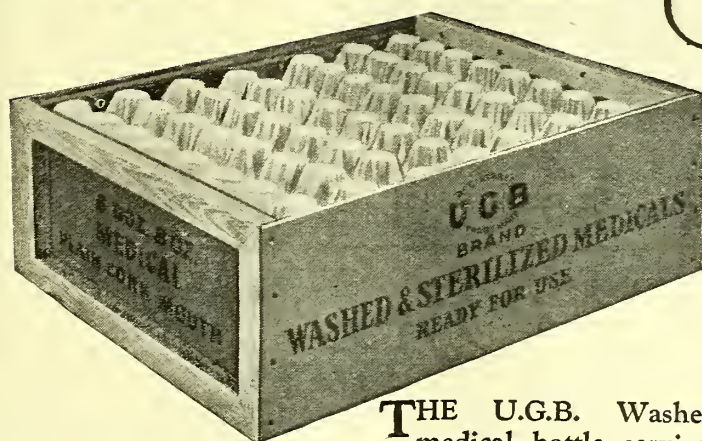
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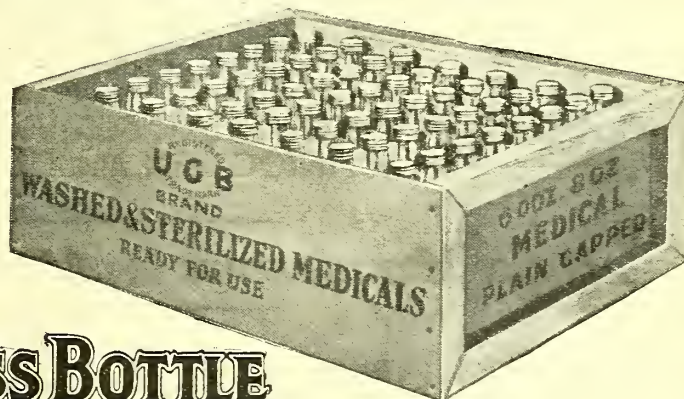


Photograph of actual pack-  
age of Cork-mouth bottles  
with cover removed.

THE U.G.B. Washed and Sterilized medical bottle service—introduced early in 1929—has proved to be an unqualified success, so much so that we were recently compelled to increase the capacity of our washing and sterilizing plant.

The screw cap service is in particular demand, and owing to the preference of users for a cap in a neutral colour, we have now standardized in fitting the bottle with an attractive RUSTLESS WHITE ENAMELLED CAP.

Photograph of actual pack-  
age of Screw-cap bottles  
with cover removed.



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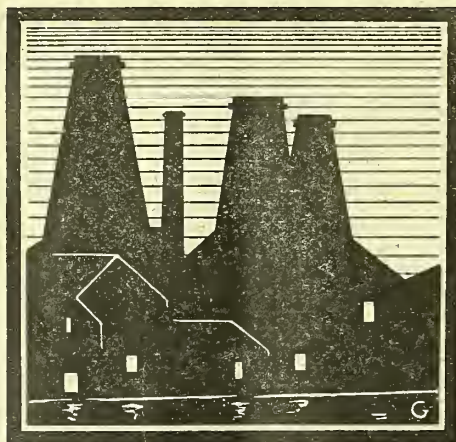
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(ESTABLISHED 1828)

**BARNSELY - - - ENGLAND**



# THE CHEMIST AND DRUGGIST SUPPLEMENT

28 ESSEX ST.  
LONDON, W.C.2

JUNE 21, 1930

*This Supplement is inserted in every copy of The Chemist & Druggist.*

## NEXT WEEK IS THE ANNUAL SPECIAL ISSUE

therefore "THE CHEMIST & DRUGGIST" SUPPLEMENT  
will be put to press a day earlier than usual. Accordingly any  
advertisements intended for the Supplement of JUNE 28th  
should reach this Office not later than

**10 a.m. on WEDNESDAY, JUNE 25th.**

Advertisements RECEIVED LATER will be inserted in the issue of July 5th

### CHEMISTS' TRANSFERS.

Messrs. Orridge & Co., 56 Ludgate Hill, E.C.

Telephone No.: CITY 2283.

May be consulted at their Offices on matters of Sale, Purchase and Valuation

1.—WESTERN SUBURB.—General Retail and Dispensing Business, with N.H.I. and Kodak Agency; returns average £2,800 per annum; double-fronted shop, very well fitted and amply stocked; very good living accommodation; held on lease at ground rent of £8 per annum; valuation terms entertained.

2.—KENT SUBURB.—General Retail and Dispensing Business, recently established; returns last week approximately £40; the returns are increasing every week; double-fronted shop; flat over; property could be purchased on mortgage; price of business about £500.

3.—WEST CENTRAL LONDON.—General Retail and Dispensing Business, with Kodak Agency; returns last year exceeded £3,000; present rate £65 weekly; gross profit 40 per cent.; double-fronted shop, well fitted in mahogany and fully stocked; rent £200; lease 18 years; terms, valuation of stock and fixtures, plus an agreed sum for goodwill, about £2,000 in all; this is a genuine business and worth attention.

4.—LONDON, S.W.—General Retail and Dispensing Business; returns, last year, under management, exceeded £2,000, with net profit £530; scope for increase under personal supervision; rent £120 per annum; sub-let £95; long lease; price £1,500; £1,000 down and the balance by instalments.

5.—EAST LONDON (Main Road).—Old-established Cash Retail and Dispensing Business, with Kodak Agency and N.H.I.; situate in busy main road; returns about £4,500 per annum; large double-fronted shop, well fitted and stocked; flat over; long lease; quick sale essential.

6.—METROLAND.—Good-class Retail Business, with Kodak Agency; returns last year about £2,300, with scope for further increase; corner shop, well fitted and stocked; there are two flats, one of which is sub-let at £55 per annum; vendor owns the property and will sell same or grant a lease at a rental to be agreed; price asked for business £1,700, or offer; vendor will accept less for the business from a buyer who also purchases the property; the property can be purchased on mortgage.

7.—TOOTING.—Cash Retail Business, with Kodak Agency; turnover last year about £1,950, with net profit approximately

£600; single-fronted shop; stock and fixtures worth £625; 15 years' lease; net rent £46; house sub-let; price £1,100.

8.—BIRMINGHAM (Near).—General Retail and Dispensing Business, with Kodak Agency and large D. & P. connection; returns last year £3,802, under management; very good profits; double-fronted shop, well fitted and stocked; reasonable rent; lease has 16 years unexpired; price £3,000.

9.—DORSET COAST.—Cash Retail and Dispensing Business; returns last year £3,255, with net profit £940; large double-fronted shop with five windows; well fitted and stocked; eleven-roomed house, with greenhouse and private entrance; rent £250; new lease; price £3,000.

10.—SOUTH COAST.—Good-class Retail and Dispensing Business; established many years; returns exceed £2,850, with gross profit approximately £1,200; double-fronted shop, well fitted and stocked; extremely good house, which can be sub-let to cover the whole of rent if so desired; long lease; price to be arranged; this business offers scope for increase under more modern management.

11.—HOME COUNTY.—Old-established General Retail and Dispensing Business; returns over £3,000 per annum; good profits; the shop is well fitted in mahogany and fully stocked; held on lease at low rental; further details on application.

12.—ESSEX.—General Retail and Dispensing Business, with Kodak Agency; returns approximately £2,000 under management; single-fronted shop, well fitted and amply stocked; living accommodation; new lease at reasonable rental; the vendor is fairly anxious to sell, and will accept first reasonable offer.

13.—SOUTHERN COUNTY.—Cash Drug Store, with Post Office and Tobacconists; returns from Drug Store £1,500 per annum; combined net profit £450; living accommodation; new lease will be granted; price asked £1,500; part payment entertained.

14.—WEST COUNTRY.—Retail and Dispensing Business, with Kodak Agency; very old established; returns last year £2,160; net profit approximately £500; scope for increase; stock and fixtures estimated to be worth £1,150; double-fronted shop; held on lease; price about £1,400.

Messrs. O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone Profit, the Value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes confusion and loss.

### Valuations for Stocktaking

Messrs. O. & Co. are prepared to undertake these essential duties and make SPECIAL TERMS for such service.

**ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.4**

# PERSONAL

Should you be thinking of disposing of your business, or, on the other hand, if you are contemplating purchase; in either case I can give you personal attention and in strictest confidence.

Drop me a line as a preliminary. I may be in your district soon and will call and see you.

I have a long and intimate experience which is at your disposal.

VALUATIONS  
SALES  
PURCHASES  
INCOME TAX  
COMPANY FORMATION  
STOCKTAKING

*Ernest J. George*

3 ST. PAUL'S CLOSE, WALSALL

Telephone: 3774



## The Association of Manfy. Chemists, Ltd.

Business Agency, Transfer & Valuation Department

Head Offices—Kimberley House, Holborn Viaduct, London, E.C.1 (and at 2 Bixteth Street, Liverpool).

PARKIN S. BOOTH, Valuer. Phone: City 1261-2-3

### BUSINESSES FOR DISPOSAL

1.—LONDON, S.W.—Old-established Chemist's Business, held on lease 8 years at £56 p.a.; let off £91 p.a.; returns average £17/20, under management; premises consist of double-fronted shop with two rooms behind; price for lease and goodwill, £150; fixtures, etc., £150; stock at valuation, approximately £350. Further particulars on application. (43)

2.—LONDON, N.7.—Old-established Optical Business, combining recently established Pharmacy, held on lease with 14 years to run at a rental of £250 p.a., of which £135 is let on lease; returns £28 per week; very large shop, dispensary and sight-testing room, situate in busy main road; no opposition for some distance. Further particulars on application. (42)

3.—LEEDS.—Old-established Business for quick disposal, situate in busy main thoroughfare; returns average £30 per week; property for sale, consisting of 2 houses and one shop; one house sub-let at 10s. 6d. per week; price for property £950; price for business £550, all at. Further particulars on application. (37)

4.—LIVERPOOL.—General Retail Business, with N.H.I.; established many years; turnover for year ended March 31 £1,340, plus N.H.I. £380; with capable supervision this could be considerably increased; tenancy yearly at rental of £75 per annum, plus rates; price asked £500, plus stock at valuation (approximately £475). (40)

5.—LONDON, S.W.—Recently-established Retail Dispensing Business premises on 15 years' lease at £150 per annum, of which part is sub-let at £104 per annum; returns 1929, £1,932, all cash. Kodak and U.C.A.L. Agencies; price for quick sale £1,100 all at, or £750, plus s.a.v. (approximately £425). (41)

6.—LINCS.—Established Dispensing and Retail Business for quick Disposal in important town; 17½ years' lease to run at £200 per annum; returns average £50 per week; very large shop, situate in main thoroughfare; specially recommended.

7.—SURREY.—Good-class, well-established Family Retail Dispensing Business, with Kodak Agency; situate in high-class residential suburb, premises consisting of corner shop with excellent dwelling accommodation; held on lease 14 years at £150 per annum; shop well fitted and up-to-date high-class stock carried; returns average £40 per week; price for quick sale £2,000, or £500 lease and goodwill, plus stock and fixtures at valuation. (36)

## BERDOE & FISH

CHEMISTS' VALUERS AND TRANSFER AGENTS,

41 Argyle Square, KING'S CROSS, W.C.1

(One minute from St. Pancras and King's Cross Stations.)

1.—BOURNEMOUTH.—Good Light Retail Dispensing and Photographic Business, in fast growing residential district; plenty of scope; net profit averages £500; modern pharmacy, with house; owner retiring; price £1,500, or offer.

2.—EAST YORKS.—Old-established Light Cash Retail, in busy town; returns about £2,150; audited accounts; low rent; good house and shop; same hands many years; price £850; little more than valuation.

3.—HAMPSHIRE (Market Town).—Good-class Family Retail and Dispensing Business; returns average £1,830; audited accounts; modern pharmacy; good position; fully stocked; price £1,400.

4.—SOUTH COAST.—Good-class Retail Dispensing and Photographic, in main shopping street, close to sea; returns under manager £2,000; good profits; large shop, modern fitted and fully stocked; price £1,500.

5.—CHESHIRE.—Unopposed Light Country Retail, returning about £1,000; good profits; plenty of scope; good house attached; every convenience; illness sole cause of sale; price, with freehold, £1,050.

6.—NORFOLK.—Unopposed Mixed Village Business, returning last year £1,059; sole cause of sale health reasons; good eight-roomed house, garage and over quarter-acre of fruit and flower garden; stock and fixtures worth £500; price £600.

7.—LONDON, E.C.—Good-class City Business, for sale through ill health; returns last year £3,255; audited books; long lease; well fitted and fully stocked; price £2,800.

8.—GOLDERS GREEN.—Good-class Family Retail and Dispensing; returns about £2,000, under manager; good profits; handsome pharmacy, with flat over; long lease; offers invited; must be sold.

9.—LONDON (Essex Suburb).—Light Cash Retail, with Photo and N.H.I.; returns over £3,600; audited accounts; no immediate opposition; good stock; price with freehold £3,200; recommended.

10.—LONDON, S.E.—Sound Cash Retail, with Kodak Agency and N.H.I.; returns £1,550; net profit £480; audited accounts; house attached; low rent; long lease; fully stocked; price £1,150.

11.—HACKNEY.—Profitable Light Cash Retail, with N.H.I. and Photo; present returns £1,500; good profits; large shop; good position; well stocked; price £850; trial allowed.

Estab. 1870.

Telephone: Terminus 3574.

## BANK LOANS to CHEMISTS

### When Buying A Business or Partnership Consult Us —

We are not Transfer Agents, but we arrange GUARANTEED LOANS with the LEADING BANKS for qualified Chemists who require Capital.

The Banks charge 1% over Bank Rate (minimum 5%).

Repayment of Loans can be spread over 5, 6, or 7 years. (Note: Income Tax Abatement may be obtained on the Interest paid, thus bringing the present Net Interest Rate down to 4% per annum approx.)

NO PERSONAL SURETIES or GUARANTORS are required. We arrange the necessary guarantees by insurance with a FIRST CLASS INSURANCE COMPANY for whom we act as SOLE AGENTS for this business.

All Enquiries receive the immediate attention of the Principals.

## AUCHTERLONIE, WILLIAMS & CO., LTD.

Mortgage and Insurance Brokers,

14 HENRIETTA STREET, STRAND, LONDON, W.C.2. Telephone: Temple Bar 2831-2 (two lines).





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### HERE IS YOUR GREAT OPPORTUNITY

Write NOW for full Details and Particulars of  
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75 SHOOT-UP-HILL, CRICKLEWOOD, N.W.2

## JOHN BRIERLEY, F.N.A.A.

CHEMISTS' VALUER and TRANSFER AGENT  
135 Queen Street, Newton Heath, MANCHESTER

Liverpool (near), returns £1,400 p.a., house, price £750.  
Manchester, returns £1,150 p.a., main road, house, price £450.  
Others, Cheshire, Blackpool, S. Yorks, Norfolk, Peak District and S. Wales.

"Valuations by fully qualified staff." (Tel.: Failsforth 113.)

DRUG STORES in important Yorkshire town at £150 and £400, also one in Lancashire £650. Chemist's Business in Yorkshire £550, also one at £1,000. Further particulars apply:

## CHARLES E. NAYLOR, F.N.A.A.

CHEMISTS' VALUER  
170 VESPER ROAD, KIRKSTALL, LEEDS

'Phone: Horsforth 324.

### PREMISES TO LET.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

**BLACKPOOL.**—Double-fronted Shop, now empty, with living accommodation; 5 years Chemist; no ingoing; also other Shops, all in main street, including lock-up shop. Owner, 189 Church Street, Blackpool.

**THE** terrace of Freehold Shops situated in a most central and important position at the junction of Boston Road and Uxbridge Road, Hanwell, W.7, is almost completed, and shops are now available for renting or purchase. Particulars from the building owners, R.C.H., Ltd., 2 Robert Street, Adelphi, London, W.C.2.

**TO LET.**—Accommodation suitable for a Dentist over high-class pharmacy, S.E. London; excellent opportunity for a smart man; plenty of scope; no near competition; no premium. Apply, "Advertiser," 307 Grange Road, South Norwood, S.E.

## BUSINESSES FOR DISPOSAL.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

**BLYTH, NORTHUMBERLAND.**—For Sale as a going concern, the business of Manufacturing Chemists and Wholesale Druggists, carried on by Macsons, Limited; stock and fixtures at cost, property at valuation. Apply to the Managing-Director at Union Street, Blyth, Northumberland.

**BRADFORD.**—Well-established, high-class Family Retail and Dispensing Business, Kodak and Rexall Agents, in best residential part of city; no near opposition; splendid freehold house and shop. Details on application to 172/148, Office of this Paper.

**COTSWOLD HILLS.**—Drug Store for disposal, with Kodak Agency; good position; on main road; nice house, with garden; low rent and rates; good opening for N.H.I.; same hands 23 years; low price for quick sale, or would consider partnership; genuine buyers only need apply. R. Bartleet, Market Place, Northleach, Cheltenham.

**DEVON.**—Excellent opportunity; owner retiring; Dispensing and Family Business; takings £1,200 to £1,500; same proprietor over 50 years; fine position; corner premises; near Post Office; main thoroughfare; side entrance; good house; good-will, fixtures, fittings, utensils, £500; stock at valuation; lease or sell premises. 149/21, Office of this Paper.

**HOME COUNTY.**—Very profitable Pharmacy in main thoroughfare of important industrial and market town; large double-fronted shop, house of 7 rooms, held on long favourable lease; substantial and increasing turnover; good scope for Optics; price £900; stock at valuation; part payment entertained. 151/4, Office of this Paper.

**LONDON, S.E.**—Main road, well-fitted Drug Store; 5 rooms, kitchen, etc.; fine opportunity for qualified man; long lease at £60, rising £70; price £425, all at. Stocker & Roberts, 3 Railway Approach, Lewisham.

**LONDON, S.W.**—General Retail; scope for increase all round; returns £1,200; net profit £340; rent £65 per annum; sub-let £78; vendor, who is obliged to leave business through ill health, will accept low price for quick sale; splendid chance for man with small capital; particulars at interview. 152/12, Office of this Paper.

**LONDON, S.E.**—Retail Dispensing and Photographic Business; attractive modern shop, nicely fitted and well stocked; in good locality; exceptional position and opportunity for Chemist-Optician; lease 19 years; rent £125, inclusive of part living accommodation; returns £1,650 under management; still increasing; price £1,050 cash; full particulars to genuine buyers. Apply 152/9, Office of this Paper.

**MORECAMBE.**—Very old-established cash Drug Store Business, with good living accommodation, excellent position, with freehold property; Kodak Agency; good opportunity for qualified man. Haworth, Drug Store, Queen's Square, Morecambe.

**SUNDERLAND.**—The opportunity arises to purchase a sound established Chemist's and Druggist's Business, complete, the property, excellent fixtures, all new stock, etc., in one of this large town's busiest thoroughfares; double-fronted shop (rooms above sub-let), dispensary, large warehouse, yard, etc.; excellent chance for parent wishing to start son in business; elderly owner (owing to son's illness), having too much on hand, wishes to dispose of the above; established 7 years; principals only. Write 149/10, Office of this Paper.

**WEST RIDING.**—Lock-up Shop; returns £1,000; growing district; no opposition; good N.H.I.; lease; price £400; genuine reason for selling. 150/6, Office of this Paper.

**WEST MIDDLESEX** (in good residential district).—High-class Family Retail and Dispensing Business for Sale through retirement; turnover about £2,500; easily worked; books audited by chartered accountants; convenient house and garage; well-appointed pharmacy; price £2,000; only cash buyers entertained. Apply "Retiring," 173/156, Office of this Paper.

**FINE** opportunity for young married man; unopposed Light Retail; on lease; modern shop and house; everything new; 3 years established; N.H.I.; electric light and heat; Kodak Agency; returns £1,120; stock £544; rent £104. Apply "Chemist," Darley Dale, near Matlock.

**FOR** Sale, as a going concern, a Branch Business in good-class suburban district; good stock and well fitted; Kodak and N.H.I.; quick sale desired; principals only and banker's reference; turnover first year approximately £800, under manager; excellent scope for young chemist with ideas. Apply to 145/39, Office of this Paper.

**PHARMACY** for Sale, with house, main road, S.E.; excellent position for N.H.I.; Kodak Agency; net profit £11 per week; lease 14 years unexpired; rent £55; rates £32 per annum; upper part let at £1 8s. 6d. per week; vacant if required; cash register, fittings, lease, goodwill, good stock, all at, £1,695. 127/38, Office of this Paper.



**S** SMALL Chemist Business, doing about £26 weekly, with really splendid opportunity for man with Optical qualification to extend Optical Department by adding N.H.I. and H.S.A. Sight-testing; shop situate London, E.; main road shopping centre; low rent; long lease; splendid living accommodation; double-fronted shop; well fitted and stocked; price £850 (lowest), or £250, stock and fixtures at valuation; shop well worth inspection; books audited. 149/8, Office of this Paper.

**S** PLENDID Village Chemist's for Sale; established 30 years; no other chemist's; death cause of sale; £350, stock, good will and fittings. Apply H. Sweeney & Son, New Road, Portsmouth.

**£125.**—VALUE of stock and fittings only, nothing for lease or goodwill; stock about £90; recently established Chemist's Business. Retail and N.H.I., in densely populated London district; shop and 3 rooms above; 21 years' lease at rental of £55; good opportunity for expansion; sale owing to ill-health. 150/18, Office of this Paper.

**£125** SECURES nicely fitted (neglected) Drug Store (in South Wales village) and stock; owners of independent means and aged; opposition chemist coining money; advertiser requires £10 commission if deal comes off. 152/37, Office of this Paper.

## BUSINESSES WANTED.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

**B** ERDOE & FISH are in immediate want of sound Businesses up to £4,000, and cordially invite correspondence from intending vendors. We have a large number of cash buyers waiting, and are able to negotiate sales quickly and without publicity. Transfer Offices, 41 Argyle Square, King's Cross, W.C.1.

**M** IDLANDS.—Sound Business wanted by private Pharmacist, doing turnover of £2,000 upwards, and showing good net profit; one situated in Warwickshire is preferred, but this is not essential. Please send reasonably full particulars as to situation, lease, rent, turnover, and gross and net profits; all particulars treated as strictly confidential. 151/19, Office of this Paper.

**G** OOD, sound Business required showing fair profits; cash available up to £5,000. 150/27, Office of this Paper.

**R** EQUIRED, business which could be carried on by proprietor or with one assistant. Henry Grundy, The Orchard, Crocksford Road, Newmarket.

**W** ANTED, good-class Drug Store; South preferred, not absolutely essential; cash waiting; would entertain Partnership or Managership with view to early succession. Reply to 152/3, Office of this Paper.

## PARTNERSHIPS.

**P** ARTNERSHIP wanted in good, sound Dispensing Business; must bear thorough investigation; Lancashire or North Midlands; or would purchase outright; capital available about £800; banker's and solicitor's references exchanged. 149/5, Office of this Paper.

**P** ARTNER required, with option of purchase if desired, in firmly established business; London suburb; good neighbourhood; profitable assets; unique opportunity. 151/34, Office of this Paper.

## PREMISES FOR SALE.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

**B** ROADWAY PARADE, HAYES, MIDDLESEX.—Shops for Sale or Lease in this district of exceptional development; good opening for Chemist and Druggist; small deposit; balance on mortgage, repayable on easy terms. Apply Perrys (Ealing), Ltd., 15 Uxbridge Road, Ealing, W.5.

*We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.*

## AGENCIES.

### MANUFACTURERS!

Representative with good connection, both wholesale and retail Drug and Jewellery trade in Western Canada, headquarters Winnipeg, is desirous of taking up some good line for that territory. References submitted and correspondence can be treated in confidence. Write "Agent," c/o A. McKim Limited, Winnipeg, Man., Canada

**A** FIRM of Manufacturing Chemists require Agents, on commission, for some attractive lines of their own manufacture which have a large and ever-increasing sale in many parts of the country. Agents required for the Midlands and Eastern Counties, South Coast, West of England, and South Wales. 172/147, Office of this Paper.

**A** N Office Address with services in Paris for £5 a year. Letters forwarded, representation, and all reasonable commissions undertaken. Write Box 689, Smiths' Agency, Ltd., 100 Fleet Street, London, E.C.4.

**F** IRST-CLASS Selling Line required by Traveller with a live connection, Chemists and Stores, covering the five Northern Counties, Yorks, Durham, Northumberland, Cumberland and Westmorland. 152/34, Office of this Paper.

**I** MPORTERS of Pharmaceutical Specialities and Proprietary Medicines, established 7 years, with connections in the domestic trade, want offers from a few first-class English or Continental firms desirous of developing their businesses; English and Spanish correspondence; exclusive territory; bankers' references. Isajas G. Lopez & Co., Box 899, Bogota, Colombia, South America.

**W** ELL-KNOWN Continental Perfumery Maker requires Agent with sound trade connection; manufacturers of a large assortment of Packed Perfumery, Toilet Products and Milled Toilet Soaps. Replies to be addressed to 172/149, Office of this Paper.

## SITUATIONS OPEN.

### RETAIL (HOME).

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

**B** IRMINGHAM (near).—Qualified lady to take charge small branch. State salary required and when free. Murray, Chemist, Tipton, Staffs.

**E** AST HAM.—Qualified Chemist for small Family, N.H.I., Photography business; age not under 30. Full particulars and salary required, which must be moderate. Fookes, 34 Vicarage Lane, High Street South, East Ham.

**E** AST MIDLANDS.—Assistant (male), permanency if suitable, in first-class business; no N.H.I.; age 25 to 35; a really capable Dispenser essential, with good counter personality; qualified preferred. Full particulars of where apprenticed and experience, enclosing photo if possible, and stating salary required, to 152/14, Office of this Paper.

**G** UILDFORD.—Wanted, qualified Assistant; capable Dispenser, smart at Counter. Apply, with full particulars of experience, stating salary, enclosing photo, to H. Jeffries & Co., 23 High Street.

**L** IVERPOOL.—Gentleman required to manage branch; age not under 30; good house with side entrance available shortly for married man; must be neat and perfect Dispenser, with knowledge of Photography and Window-dressing. Applications not answered in three days respectfully declined. Permanency offered right man. Full particulars and salary required to Prebbles, Chemists, Kensington, Liverpool.

**L** ONDON.—Qualified Manager for relief work; must be smart Counterman and capable Window-dresser; suitable man proving his ability will be given permanency. Full particulars, age, experience, and salary required to 149/26, Office of this Paper.

**L** ONDON, N.W.—Wanted, a genuine, conscientious Assistant, with knowledge of Herbs and Elastic Hosiery; good prospects for efficient man with business at heart; plenty of scope and good prospects. Write, stating full particulars, to 150/5, Office of this Paper.

**L** ONDON, W.C.—Qualified Assistant (male) wanted, accustomed to good-class Retail and Dispensing; personal application. Burden & Co., 41 Store Street, W.C.



**LONDON, E.C.**—Wanted, Junior Assistant, unqualified (male), for three months from early date. Apply Pollock & Co., 133 Fenchurch Street, E.C.3.

**LONDON** (West-End) Chemist, contemplating holiday in August or September, offers his house over business to a Pharmacist and family desirous of taking holiday in London; the pharmacist in return would be required to act as Locum, duties being very light. Apply 151/13, Office of this Paper.

**LONDON, N.**—Manager, qualified, required for busy pharmacy run on store lines; applicants should have had experience of large N.H.I. connection and modern display. State wage required, age, height, and when at liberty. Bonus and commission offered. 173/151, Office of this Paper.

**MANCHESTER**—Qualified Assistant wanted for permanency at once, middle-class trade; good Window-dresser. Please state references, salary, and when disengaged. 151/20, Office of this Paper.

**NEWQUAY**—Lady Assistant (qualified) required; young; experienced in high-class Pharmacy, good knowledge of Toilet and Perfumery goods; state age, height and salary required; full particulars and photograph (snap). Raymond Smith, Chemist, Newquay.

**ROYAL WATERLOO HOSPITAL**, Waterloo Road, S.E.1.—Qualified male Assistant wanted for 8 weeks, July 7 to August 30 inclusive; hours 9.30 to 5, no Sunday or late duty, Saturdays 1 p.m.; salary £4 per week; Hospital experience desirable. Apply in person or by letter to the Pharmacist.

**SHEFFIELD**—Wanted, capable qualified Assistant; capable of being left in charge; must be agile, good Window-dresser, Dispenser and Counterman; salary £4 10s. and possible commission. Reply 191 Rustlings Road, Sheffield.

**SHEFFIELD**—Qualified Assistant, about 26-30, immediately, quick cash business with Photography, for Counter; outdoors; no Sunday duty. Please give full particulars of experience, etc., in first letter, stating age, height, when disengaged, salary required to H. G. Williams, 118 The Moor.

**SOUTH KENSINGTON**—Wanted, about middle of September, a qualified Assistant, age about 35; high-class Dispensing and general experience essential. State full particulars and salary required; send photograph if possible. 150/39, Office of this Paper.

**SUSSEX COAST**—Wanted, at once, a smart, reliable Assistant for the season (or possible permanency to a suitable man); good-class experience, Photographic, Dispensing, etc. Full particulars, stating age, height, and salary (if possible enclose photo). Apply J. Gale, "West Deyne," Seisey, Sussex.

**WEYMOUTH**—Qualified Manager for branch (under 30), good Salesman, accustomed to seaside seasonal trade, required; worker wanted. Also Junior Assistant for Counter and Velox Printing. Full particulars, references and photo to Edmonds, Chemist, Weymouth.

**WEST NORFOLK AND KING'S LYNN GENERAL HOSPITAL**—Wanted, whole-time Dispenser; fully qualified; salary £150 per annum. Applications, stating age, experience, and qualifications by June 30, to J. E. Searjeant, House Governor and Secretary.

**WIMBLEDON**—Manager (qualified) required for store pharmacy; applicants should be accustomed to making good displays and possess up-to-date ideas. State age, height, wage expected, and when available. House, bonus, and commission offered. 173/150, Office of this Paper.

**ASSISTANT**; must be good, experienced Dispenser and pleasant Counterman. Please state age, salary, and experience. Manager, 51 Greenford Avenue, Hanwell, W.7.

**ASSISTANT** required for season; must be a capable and neat Dispenser and accustomed to high-class business. Give particulars of experience, age, height, salary required (outdoors), and enclose photograph to Cadman, Dispensing and Photographic Chemist, Sheringham, Norfolk.

**ASSISTANT**—Unqualified gentleman for good-class business, pleasant locality 10 miles London; two of staff leaving September to enter college, permanency to right man certain; applicant must be of refined manner, speech, well educated, and used to good-class business; smart appearance and not less than average height; competent Dispenser, Counterman and Window-dresser; interview required, fare paid one way; fortnight's holiday October; send no stamp. 151/31, Office of this Paper.

**AT once**, Junior Assistant; unqualified; opportunity for the right man. Apply, in person, Bird & Storey, 42 Eastcastle Street, Oxford Street, W.1.

**CAPABLE** Junior wanted at once, competent Dispenser, Counterman and Window-dresser, for good-class business. State age, height, salary required, and references. Easy hours; no Sunday duty. Goodman, Chemist, Banbury, Oxon.

**COPPEN BROS.** require a Locum (fully qualified) for their Richmond (Surrey) branch, two weeks, commencing August 25 to September 6; no Sunday work. Apply personally or by letter, Coppen Bros., 12½ Carey Street, Vincent Square, Westminster, S.W.1.

**GENTLEMANLY** Junior Assistant for season; accustomed to good-class business; good Counterman. Reply, stating salary outdoors, references, enclosing photo. Thorp & Son, West End Pharmacy, Bognor Regis.

**LADY** Assistant wanted for season, July to September, in South Coast Pharmacy; reliable Dispenser and knowledge of Retail Photography required; must be retail trained; suit newly qualified; applications must enclose retail reference. 148/3, Office of this Paper.

**LOCUM** required, qualified, experienced, lady, Hospital Dispensing, about September 1 for 3 weeks. 149/2, Office of this Paper.

**LOCUM** wanted, qualified, gentleman, for three weeks from July 14 or 21, for London County Council Dispensaries in North London; hours 9 to 5.30; no Sunday duty; salary £5 5s. weekly. Please apply with particulars and references. 150/12, Office of this Paper.

**LOCUM**, qualified, wanted, Saturday, July 19, to Saturday, August 2 (inclusive). Apply, stating all particulars as to age, experience, references, and salary required, to Henry J. Parker, Drug Dept., Industrial Co-operative Society, Ltd., Hebdon Bridge.

**LOCUM**, July 14 to August 2; young man preferred; must have undeniable references; S.W. London district. 151/30, Office of this Paper.

**LOCUM**; qualified; July; easy berth; not single-handed; Family and Dispensing business, near Blackheath. References and terms to 151/26, Office of this Paper.

**MANAGER** wanted, Drug Department, in General Store; high-class trade; no dispensing. State age, experience, salary required. Burgis & Colbourne, Ltd., Leamington Spa.

**MANAGERESS**, qualified, wanted for Village Branch, with good all-round experience. Give full particulars as to experience, age and salary required. Hillman Attwell, M.P.S., Cranleigh, Surrey.

**OPPORTUNITY** occurs for a qualified young Pharmacist, unusually well trained and of good appearance and address; first-class Dispensing and superior Counter experience essential; the position offers opportunity, is permanent, and progressive. Application (in confidence), "Director," Philip Harris & Co., Pharmacists, Birmingham.

**QUALIFIED** lady; must be thoroughly efficient. Apply W. H. Green, 28 Earl Street, Coventry.

**QUALIFIED** Assistant required to manage country business in Sussex until business is disposed of. State salary, age, experience, etc. 149/15, Office of this Paper.

**QUALIFIED** Assistant for busy City business in London; must be accurate Dispenser and efficient Salesman; easy hours, with no Sunday duties. Send full details, age, wages, previous experience, and when at liberty to 149/260, Office of this Paper.

**QUALIFIED** Manager wanted at once for City branch; experience in the City or West-End essential; close 2 p.m. Saturdays; no Sunday duty. Apply, stating age, experience, salary required, to Head Office, Wm. Fox & Sons, Ltd., 109, 111, 113 Bethnal Green Road, London, E.2.

**QUALIFIED** lady Locum for three weeks, beginning August 9 or 11; no N.H.I. Rowcroft & Co., Ltd., 65 Week Street, Maidstone.

**QUALIFIED** Assistant, with experience of middle-class trade and N.H.I. Dispensing, required for London, E. Give full particulars of experience, names of references, age, salary required, and when disengaged. Apply (letter only) Phillips, 300 Amhurst Road, London, N.16.

**QUALIFIED** Manager for small branch business; state salary, age, height, and experience in first letter; 30 miles from London. 150/35, Office of this Paper.

**TANNERS** require qualified Assistant for their Stratford branch; commence July 1; good salary to the right man; age 25-30. Apply Secretary, Tanners, 350 High Road, Tottenham, N.17.

**TWO** unqualified Juniors of smart appearance required for London and district. Give full details of experience, which must include dispensing, display, etc. State height, age, wage required, and when at liberty. 173/152, Office of this Paper.

**UNQUALIFIED** Assistant wanted for holiday relief, September 8-20; good-class Light Retail and Photographic. Apply, giving salary required and references, to "Southend," 148/20, Office of this Paper.



**PHOTOGRAPHS, TESTIMONIALS, &c.**

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. As can be readily understood, when an advertiser receives from 60 to 100 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

**UNQUALIFIED** Assistant wanted in good-class business. Apply personally, C. A. Neale, 28 Circus Road, St. John's Wood.

**UNQUALIFIED** lady Assistant required immediately, chiefly for Counter work; one accustomed to good-class Retail, Dispensing and Photography; permanency. Full particulars of age, height, experience, salary, and photo in first letter. Isaac, Chemist, Bude.

**WANTED**, qualified Chemist as Manager for old-established business, situated in busy thoroughfare in Lancashire town, with view to purchasing business; bank references or other references required. 150/2, Office of this Paper.

**WANTED**, qualified Chemist, registered J.C.Q.O., in high-class West-End business. Cheetham, 31 Tothill Street, Westminster, S.W.1.

**WANTED**, qualified lady as Locum, first or second fortnight in August; terms and references in first instance; state salary required; easily-worked business and in pleasant situation; assistant kept. W. J. Davies, Chemist, Forest Fach, Swansea.

**WANTED**, unqualified lady Assistant required until end of September; must have had good experience in Dispensing and knowledge of Photography. Apply Tidy, Chemist, Beaconsfield, Bucks.

**WANTED**, at once, Improver, just out of apprenticeship, for Dispensing, Counter and Photographic. Apply, with photo, stating age, height, full experience, references, and testimonials, salary required (outdoors), to F. P. Miller, 94 Trentham Road, Longton, Stoke-on-Trent.

**WANTED**, a capable, unqualified Managing Assistant (married), about July 14, for a good-class country business; accommodation available. Please give age, experience, references, and salary required, also enclose snap. "Pharmacist," 150/21, Office of this Paper.

**YOUTH**, about 18-20, bright and intelligent, for Retail business, West-End, near Regent Street; must be adaptable, willing, energetic, and courteous; well recommended; some previous experience necessary; the post offers good prospects for an ambitious youth. Apply "Robinson," P.C.B. 63/30, Office of this Paper.

**WHOLESALE.**

**AN** attractive side line awaits Representatives with sound connection amongst Chemists; one article only on a liberal commission basis to the right men (1, Scotland; 2, Yorkshire; 3, Northumberland and Durham). Apply, giving full particulars first instance (in confidence), to 149/20, Office of this Paper.

**LONDON** Manufacturers of Toilet Preparations require the services of really first-class Representative to take over London and suburban area with numerous repeating accounts Stores, Leading Chemists, etc.; good salary and generous commission; only those with established connections and proved ability need apply. Write, in confidence, stating particulars and record for past six years. 173/153, Office of this Paper.

**REPRESENTATIVE**, country, wanted by London Wholesale Druggists. Reply, giving full particulars of experience, etc., to "Galen," 171/102, Office of this Paper.

**REPRESENTATIVES** required in various parts of U.K., with connection amongst Retail Chemists, to introduce a new line and to sell well-established one; nominal salary and commission; other non-competitive lines no objection. Full particulars, please. 173/154, Office of this Paper.

**REQUIRED**, Representative, East Coast, with existing connection, to carry extra line. Apply, by letter, to Staniford, Ltd., Carnwath Road, Fulham, S.W.6.

**REPRESENTATIVES** wanted, connection good-class Hairdressers, Chemists, Stores, London, South and South-East, Eastern Counties and North Midlands. Apply Leedall Manufacturing Co., Wyndham Road, Camberwell, S.E.5.

**SMART**, energetic Salesman required by leading firm of Manufacturing Chemists to take over sound connection in S. and S.W. England amongst Chemists, Hospitals, Medical Men and Perfumers.

Qualification not necessary, but applicants must have general knowledge of pharmacy and previous travelling experience. The position vacant is an important one, offering unlimited scope for advancement, and applications, which should be fully detailed, will only be entertained from experienced men. 173/155, Office of this Paper.

**(COLONIAL, INDIAN AND FOREIGN.)**

**AUSTRALIA**.—Chemist for Australia, with knowledge of the Manufacture of Essences for Confectionery, Jelly Crystals, etc.; good permanent position for man with requisite qualifications; passage paid, with agreement for period. Applications (confidential) "Advancement," c/o Deacons, Fenchurch Avenue, E.C.3.

**TRINIDAD**.—Required, young Assistant, recently qualified; good experience essential; good opportunity. Write, stating age, salary expected, etc., to "Planter," P.C.B. 63/11, Office of this Paper.

**SITUATIONS WANTED.****RETAIL (HOME).**

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

**A.A.A.A.**,—YOUNG, ambitious, as Assistant or Manager of small branch; 6 months' qualified experience, doing heavy N.H.I., Counter, Window-dressing and Manufacturing; country apprenticeship and West-End Dispensing experience; North England preferred. 150/10, Office of this Paper.

**A.A.A.**,—NEWCASTLE area. Qualified, 27, competent, reliable, desires position as Manager or Assistant; excellent Retail experience; permanency preferred; free one month. 148/10, Office of this Paper.

**A DISPENSER** (Hall qualification), thoroughly experienced with Chemists, Doctors, Institutions, desires Locums (London), June 21 to July 10 and after August 1. Miss Little, 45 Nimrod Road, S.W.16.

**A**,—QUALIFIED, Scot., 23, tall, good appearance, desires permanency; high-class Dispensing and Counter; London district; excellent references. 151/33, Office of this Paper.

**AS** Locum or part-time (Part I); experienced. Klein, 53 Hillside Road, South Tottenham, N.15.

**AS** Manager; M.P.S., F.B.O.A., J.C.Q.O.; varied and successful experience; keen business man; good Salesman; undeniable references; permanency. Replies to 151/21, Office of this Paper.

**ASSISTANT**; 38; unqualified; experienced and trustworthy; Locum or permanency; Yorkshire preferred, but not essential. 148/40, Office of this Paper.

**ASSISTANT**, 34, tall, unqualified, good-class, all-round experience, capable Dispenser, Salesman, Window-dresser, Photography (D. & P.), seeks engagement, London or provinces; good references. "Abstainer," 146/12, Office of this Paper.

**ASSISTANT**; unqualified; general all-round experience; disengaged; personal interview. Jones, 35 Brondesbury Road, Kilburn, N.W.



**ASSISTANT**; capable; Dispensing, Counter, Photography; single; active; middle-aged; unqualified. "Statim," c/o Miss Drewery, Kingsbridge House, Bracebridge, Lincoln.

**ASSISTANT**, 25, unqualified, desires permanent situation; well experienced in Dispensing, Counter and Photography; energetic, willing, and smart appearance; able to manage. Write B.M./SSPQ, London, W.C.1.

**ASSISTANT**; unqualified; experienced; Locum or permanent; can manage; disengaged. "W. T. P.," 72 Tremadoc Road, Clapham, S.W.4.

**ASSISTANT**; unqualified; 21; good experience, Counter, Dispensing, Photography, Window and Agricultural; references; disengaged. Grundy, South End, Bedale.

**ASSISTANT**, 20, Windows, Counter, Dispensing, good experience, wants work; Lancs preferred. "A. R.," 28 Clegg Street, Brierfield, Burnley, Lancs.

**BIRMINGHAM OR MIDLANDS**.—Locum engagements; first-class experience and references; disengaged. "Drugs," 64 Hunters Road, Birmingham.

**CHEMIST**, young, desires post, permanency or locum, till suited; experienced; sound references. "Chemist," 182 Upper Wortley Road, Leeds.

**CHEMIST**, 32, married, desires permanency as Manager or Senior; Locum considered. Griffiths, Chemist, Heullan, Cards.

**CHEMIST'S Assistant**, unqualified, desires change; wide experience of the business throughout; an ideal man for practically any firm; state wages given; open for engagement July 24. 147/2, Office of this Paper.

**DISENGAGED**; Locum or Manager; qualified; good experience and references. "Chemist," 46 Fairfield Road, Bristol.

**DISPENSER**.—Suit Doctor or Chemist; two or more evenings per week; over 8 years' experience; young and energetic. "Statim," 48 Grasmere Road, S.E.25.

**DISPENSER'S** Locum Tenens; M.P.S.; experienced; disengaged; testimonials and references; semi-retired Chemist. P.C.B. 63/23, Office of this Paper.

**ENGAGEMENT** wanted, Manager or Assistant; unqualified; 58; active; thoroughly trustworthy; Prescribing speciality; at nominal salary. Ewens, 58 Hamilton Street, Cardiff.

**EXPERIENCED Assistant**; tall; unqualified; middle-aged; first-class Dispensing, Counter, Photo; quick, clean, accurate; business builder; disengaged; permanency. Johnstone, 48 Bushey Grove Road, Watford.

**GENTLEMAN**, aged 25, unqualified, tall, smart appearance, desires permanent situation, N. London, but not essential; Dispensing, Photographic, Window-dressing and Retail Salesmanship. Stote, 91 Hillfield Avenue, Crouch End, N.8.

**JUNIOR Assistant**; 22; Counter, Window-dressing, Dispensing, Photographic; best references. D. McCarthy, 31 Woodfield Road, Paddington.

**JUNIOR**, 20½, all-round man, accustomed highest class trade, desires change; West-End or W. suburb; highest references. "H.," 24 Rowan Road, W.6.

**JULY 14-AUGUST 2**.—Engagement required during this period by capable Pharmacist; young; excellent references; moderate salary. Green, Hinstock Road, Plumstead. "Phone: Wool. 1303.

**LADY Dispenser (Hall)**, with excellent experience in Hospitals and with Doctors, requires post, anywhere. 65 Mayfair Avenue, Ilford, Essex.

**LOCUM**; Relief; Manager; "not registered"; 20 years' experience; Panel, Counter, Prescriber, Salesman. "Smart," 130 Scott-Ellis Gardens, N.W.8.

**LOCUM**, qualified, now disengaged, booking dates forward. Alec Whitehouse, The Larches, Annesley, Notts.

**LOCUM**; qualified; first-class experience; R.P.U. recommend; vacant dates, June 30-July 4, August 4-16 inclusive. "Pharmacist," 344 Golders Way, N.W.11.

**LOCUM**, with excellent references, free July 5 to 19; unqualified; Midlands or West preferred. "H.," 43 Quernmore Road, N.4.

**LOCUM**; Dispensing or Retail; June 30, one week; qualified; experienced. "Chemist," 100a Bellenden Road, Peckham, S.E.15.

**LOCUM Tenens or Relief**; ex-proprietor; first-class experience; gentleman of probity; booking, June 29 to August 17; excellent credentials; M.P.S., D.B.O.A.G. Bould, Chemist and Optician, Clowne, Chesterfield.

**LOCUM**, qualified, adaptable and well recommended, has vacant dates for June and July. Write to 9 St. Michael's Road, Cricklewood, N.W.2, or 'phone Shepherds Bush 2199.

**LOCUM**, middle-age, well recommended, sold own business, open for July and August. "Chemist," 3 Westcliffe Road, Westbrook, Margate.

**LOCUM**, unqualified; free July 7 to 12, August 2 to 23, after September 6; 4½ years last place; age 21; anywhere South of England. S. Davies, Railway Hotel, Guildford.

**LOCUM**; M.P.S.; vacant dates, July 5 till August 5; first class and all-round experience, including Institution work; good Dispenser. "M.P.S.," 156 Lower Clapton Road, E.5.

**LOCUM**, unqualified, or part-time till August; good Prescriber if allowed reasonable latitude; knowledge French; N.H.I.; well spoken; smart appearance; tall; disengaged; any nominal salary; City or suburb; conscientious worker; temperate. P.C.B. 63/28, Office of this Paper.

**LOCUM Tenens**; qualified; good experience; disengaged from July 14; now filling season's engagements. 150/34, Office of this Paper.

**LOCUM**.—Branch Manager, view purchase; 30 years' experience; trustworthy, reliable; disengaged. "Chemicus," 55 Clarence Street, Gt. Gloues Street, Manchester.

**LONDON**.—Manager or Locum; experienced; elderly; abstainer; qualified; free June 30. Thomas, 37 Downs Road, Clapton, E.5.

**MANAGER or Managing Assistant**; tall; experienced every branch, including Photography, Optics; sound references. 151/35, Office of this Paper.

**MANAGER**, middle-aged, desires position at Chemist's or Drug Store, with living accommodation; exceptional experience. 150/3, Office of this Paper.

**MANAGER**; 28; qualified; 11 years' experience, all branches; thoroughly competent and reliable; sound references; London or near. 144/38, Office of this Paper.

**M.P.S.**, with proved business-building ability, desires change; comprehensive experience; good prospects essential; London preferred. 149/27, Office of this Paper.

**M.P.S.**, 34, desiring change, seeks Managership in Eastern Counties; excellent experience and absolutely competent in all branches, including Optics and Photography; highest references; with or without view to succession; moderate capital. "Manager," 150/4, Office of this Paper.

**PART II Student** (sitting for Final December) desires holiday engagement July to September, inclusive; experienced, Photographic, Dispensing, Counter, Window-dressing, etc. Varley, 58 Milton Road, West Hartlepool.

**PART-TIME**; S.W. district; Dispensing and Counter; good references. Crowther, 30 Criffel Avenue, Streatham Hill, S.W.2.

**PART-TIME**, experienced, capable, unqualified, has two or three days weekly free (London); any capacity. Write "Locum Tenens," 33 Mayhill Road, Charlton, S.E.7.

**PHARMACIST**, married, middle-aged, requires charge good-class Retail; Midlands or South; country or seaside; permanency; highest credentials. 151/7, Office of this Paper.

**QUALIFIED**, 28, married, as Senior Assistant or Manager; 13 years' sound experience; excellent references; London or near preferred. 143/22, Office of this Paper.

**QUALIFIED**; tall; disengaged; age 30; 16 years' experience; Locum or Managership. "C.," 35 Randolph Road, Prince Regent Lane, E.16.

**QUALIFIED**, 29, as Manager; best all-round experience in West-End and Suburbs; London preferred; disengaged end of August; reliable references. Reid, 61 Marlborough Road, Bowes Park, N.22.

**SUNDERLAND OR WITHIN 30 MILES**.—Thoroughly experienced Assistant requires change; whole or part time; age 24; satisfaction guaranteed. 148/4, Office of this Paper.

**UNQUALIFIED** requires situation; age 23; good experience, Dispensing and Photographic. Cotton, Church Street, Newlyn W., Cornwall.

**UNQUALIFIED Assistant**; 24; all-round experience, including West-End; tactful Salesman; capable Dispenser. "Statim," "Green Meadow," Chiltern Avenue, Bushey, Herts.

**UNQUALIFIED lady** (21) desires situation; Sheffield district preferred; disengaged; excellent references; used to responsibility; salary £3 5s. 152/35, Office of this Paper.

**UNQUALIFIED Assistant** seeks Locum engagements during month commencing July 7; Sheffield district preferred, but not essential; excellent Dispensing experience and reference. A. Barker, 6 Strelley Road, Woodseats, Sheffield.

**YOUNG**, qualified, engaged in London, desires change; Somerset, Wilts or Glos.; medium or working-class; accustomed to busy Counter and Panel; willing worker. "Belladonna," 149/1, Office of this Paper.

**YOUNG lady (Welsh)** (Hall) seeks situation in South Wales; Swansea preferred; 3 years' Counter experience. Apply 149/4, Office of this Paper.

**YOUNG**, qualified Chemist requires engagement where he can extend his experience; fairly good-class business preferred; disengaged. "D. L. J.," Wayfield Lodge, Preston Park, Brighton.

**YOUNG man**, 23, wanting to settle down and qualify, 5 years' experience Retail trade, 1 year's experience Wholesale and Travelling, seeks position with Retail Chemist. P.C.B. 63/26, Office of this Paper.

**£2** 10s. weekly; Locum or permanent; long Retail and Hospital experience; disengaged; unqualified. Fredericks, 108a High Street, Clapham.



**PROMINENT FIRM OF ENGINEERS**

experienced in machinery design, having exceptional equipment for producing precision engineering work, invite enquiry from manufacturers (especially Foodstuffs, Confectionery, Drugs) seeking advice as to **REDUCTION OF COSTS** by introducing machine processes in lieu of hand methods. Will undertake free investigation and estimate for design, manufacture, and installation of suitable plant. Will also estimate and manufacture to clients' drawings. Apply, 172/127, Office of this Paper.

**WHOLESALE.**

**A.A.A.A.**—YOUNG man, age 22, requires permanent situation with Wholesale Pharmaceutical Chemists; experienced Toilet and Medicinal; knowledge Compressed Tablets; conscientious worker; London preferred; at liberty. 149/22, Office of this Paper.

**A** LIVE Representative, with strong established connection Chemists, Hairdressers and Stores in London and Greater London, desires a change; 20 years' undeniable references as a salesman, etc.; salary, commission and expenses; own car. Particulars to 152/2, Office of this Paper.

**A** PHARMACIST, 36, married, energetic, industrious, seeks position of responsibility with Manufacturer; would consider representation of reputable House. 150/23, Office of this Paper.

**A** DVERTISER, successful Salesman, 20 years' occupying important position with world-renowned house, desires position with firm of similar standing, Proprietaries, Specialities, Drugs, with view to representation or sales management, on basis salary, commission, expenses; clean record and a live connection amongst all the leading Wholesale and Retail Chemists and Grocers in the Midlands and North; can influence good business for a reliable firm; highest references. Address "Energy," 151/5, Office of this Paper.

**A** S Process Worker or Laboratory Assistant, position required, London area; applicant well versed in making Tinctures and Galenical Preparations. Marsh, 106 Borough High Street, S.E.1.

**C**HEMIST-OPTICIAN and business man (Scot), 35 years, abstainer, own business 7 years, very successful trading, experience includes Wholesale, Laboratory, Hospital and Continental work (speaks French fluently), also advertising, sales and propaganda experience, desires responsible post at once where great scope is offered; references from bankers and leading houses in Britain gladly supplied; will interview at a moment's notice. Write in first instance, 151/6, Office of this Paper.

**G**ENTLEMAN, aged 25, unqualified, desires position with Wholesale House as Representative; experienced in Wholesale Laboratory and Retail. Stote, 91 Hillfield Avenue, Crouch End, N.8.

**M.R.C.S.**, M.P.S., wishes to join Wholesale Druggist company where capital, ability and industry will be rewarded; strict confidence will be observed and highest references can be supplied. Apply "Opportunity," 152/13, Office of this Paper.

**N.B.**—MANAGER, 39, good personality, desires post with company as H.Q. Buyer, Organiser, Distributor; Book-keeping; 25 years' first-class Retail experience; exceptional knowledge of above duties. BM/PTFD, W.C.1.

**R**EPRESENTATIVE.—Smart, experienced man with first-class connection with Hospitals, Wholesalers, etc., in all parts of England, is open for engagement; salary and expenses. P.C.B. 63/31, Office of this Paper.

**R**EPRESENTATIVE, at present carrying nationally advertised Proprietary, desires one other house for the London area; 20 years' experience of the trade. P.C.B. 63/21, Office of this Paper.

**R**EPRESENTATIVE, covering the Midlands, is open for additional lines; part expenses and commission; own car. 150/24, Office of this Paper.

**R**EPRESENTATIVE, Lancashire and Yorkshire territory; 15 years' first-class connection, Chemists, Stores, Hairdressers; Retail, Wholesale and outside knowledge of the trade in all departments. References and sales records to 150/37, Office of this Paper.

**FOR SALE.**

**G**ENUINE Green's American Soda Fountain, complete, with two cylinders, cost £120, £17; W. Qt. Inf. Senegae Conc. B.W.s, 3s. 9d. lb.; 3lb. Creosote, B.P., 1s. 11d. lb.; 5lb. Pot. Iod., 16s.; 30 oz. Quin. Sulph., 1s. 10d.; 8 oz. Iodum. Resub., 1s. 1d. Stevens, Chemist, 97 Borough High Street, London, S.E.1.

**CLEAR OUT**—your Old or Damaged Stock of Photo Goods.

Why keep them any longer? Turn them into CASH.

**I GIVE BEST PRICES** for Old Films (damaged, fogged or expired dates); Packet Papers, Cards (any sizes), Old Photo Goods or Cameras, Bromide Papers, Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.

**S. E. HACKETT, 23 July Road, Liverpool**

**M**ODERN composite Wall Fitting, containing 57 glass labelled and knobbed drawers flanked by two large cupboards and surmounted by three plate-glass fronted cases with drug shelves between, 14 ft. long, 9 ft. 6 in. high overall, £25; new 7 ft. Dispensing Screen, mirror centre, flanked by full-length glass cases, £15. Ingram Bros., James Street, Louth, Lincs.

**MISCELLANEOUS.**

**C**HEMISTS' FITTINGS.—Silent Salesman Cases, Drugfittings, Wallcases, Dispensing Screens, glass-front Counters, Perfume Cases, Window Enclosures, Glass Shelves, Mirrors, Counter Drawers. Before you decide send to **GEORGE COOK**, the well-known Chemists' Fitter, 27 Macclesfield Street, City Road, London, E.C.1. 40 years' experience.

**F**OR quick sale, two heavy Werner Jacketted Mixers, in excellent condition. Write 172/142, Office of this Paper.

**F**OR Sale, Cylindrical and also "U"-shaped Drying Machines with Agitators. Write 172/143, Office of this Paper.

**F**OR Sale, Single Pot and Double Pot Ball Grinding Mill, also Tube Filling Machine. Write 172/144, Office of this Paper.

**F**OR Sale, Vertical Stone Mill, also Grinder with screens (Perplex type). Write 172/145, Office of this Paper.

**F**OR immediate disposal, Alsing type Ball Mill, Silex lined; also C.I. Ball Mill. Write 172/146, Office of this Paper.

**L**IMITED COMPANIES REGISTERED.—I have now been engaged in this work over 20 years, so you may rely that my experience in Chemist and other Companies (I take all trades) is hard to beat. Most reasonable and inclusive fee. Advice free. **A. B. SLACK**, 15 Christ Church Avenue, West Didsbury, Manchester.

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